KIR'YANOVA, T.E.

Use of the gonioscopic method in a study of the state of the angle of the camera ocili anterior in glaucoma. Trudy mol. nauch. sotr. MONIKI no.1:73-76 '59 (MIRA 16:11)

1. Iz kliniki glaznykh bolezney Moskovskogo oblastnogo nauchno-issledovatel'skogo klinicheskogo instituta imeni Vladimirskogo.

ZATULOVSKIY, David Moiseyevich; STRIGIN, V.M., red.; KIR'YANOVA, Z.V., mlad. red.

[The Pamirs' riddles and contrasts] Zagadki i kontrasty Pamira. Moskva, Izd-vo "Mysl'," 1964. 126 p.
(MIRA 17:5)

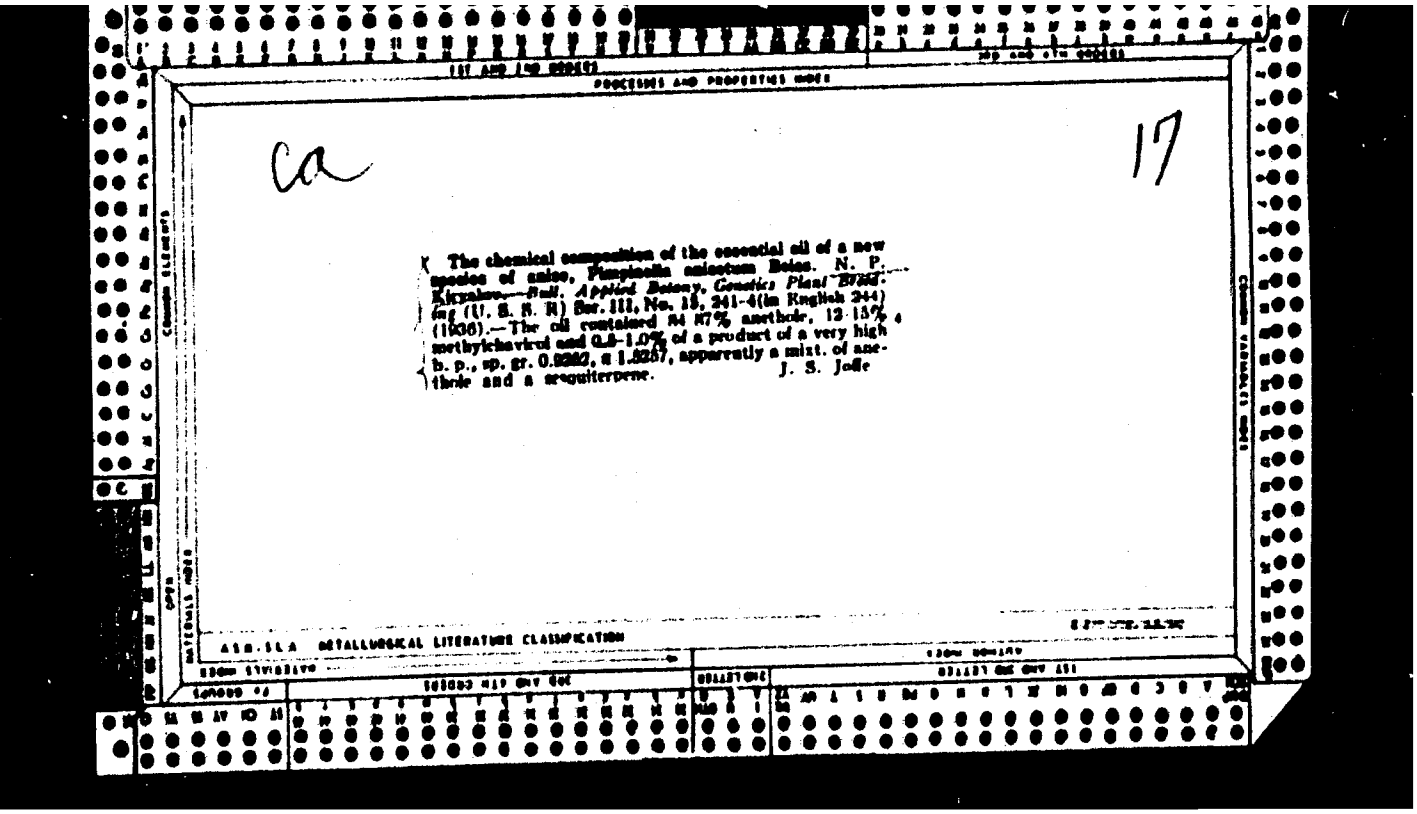
KIR'YAKULOV, V.A., inzh. (st. Simferopol', Stalinskoy dorogi)

In order to ensure traffic safety. Put' i put. khoz. no.5:13-14 My '59. (MIRA 12:8)
(Railroads--Safety measures) (Railroads--Track)

KIR'YAKULOV, G.S. [Kyr'iakulov, H.S.], assistent

Anatomico roentgenological characteristics of anastomosis of the human umbilical arteries. Ped., akush. i gin. 25 no.2: 59-61 '63. (MIRA 16:9)

1. Kafedra topografichnoi anatomii ta operativnoi khirurgii (zav. - dotsent M.S.Leychik [Leichyk, M.S.] Donets'kogo medichnogo institutu (rektor- dotsent A.M.Ganichkin [Hanichkin, A.M.]).
(FETUS, DEATH OF) (UMBILICUS—BLOOD SUPPLY)



ca

17

The chemical composition of the essential oil of a new species of anise, *Pimpinella anisetum* Boiss. N. P. Kirpalov.—*Bull. Applied Botany, Genetics Plant Breeding* (U. S. S. R.) Ser. III, No. 13, 241-4(in English 244) (1936).—The oil contained 84 87% anethole, 12-15% methylchavicol and 0.8-1.0% of a product of a very high b. p., sp. gr. 0.9282, n 1.4267, apparently a mixt. of anethole and a sesquiterpene. J. S. Joffe

(8

27

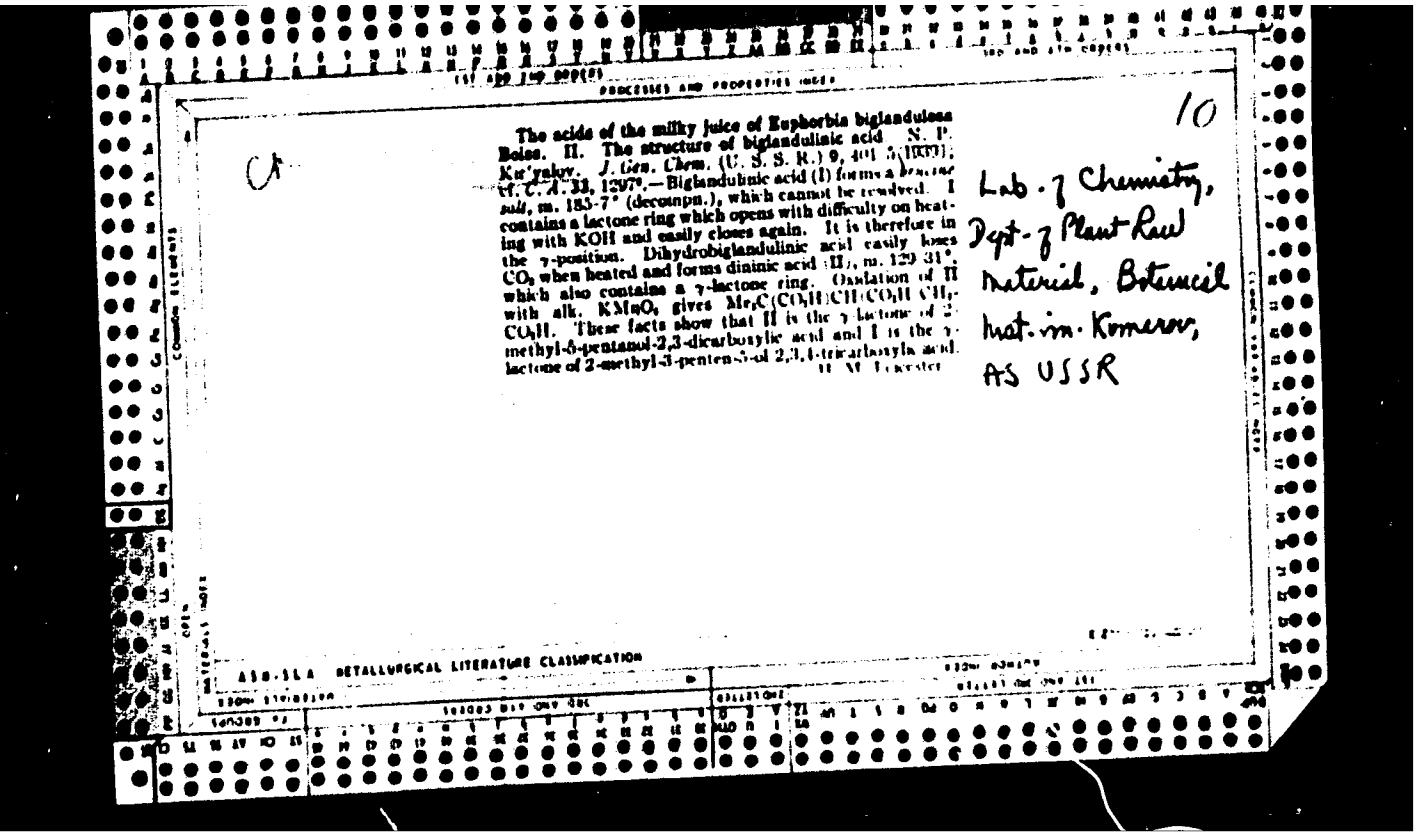
Biochemistry of Sesamum orientale L. N. P. Kuvabev. *Rastitel'nye Kul'turnykh Rastenii* 3, 341-62(1930); *Khim. Referat. Zhur.* 1, No. 11-12, 60(1938).—Data are presented on the chem. compn. of the seeds, the properties and the compn. of the oil, the influence of conditions and place of growth on the oil content of the seeds, the properties of the oil, and on the content of other substances. A no. of references are given on the conditions for the growth, the ripening and the keeping qualities of the seeds, as well as on the chem. changes taking place in the oil, and on the oil and protein content of the seeds. The utilization of *Sesamum orientale L.*, and ways for grading it are discussed. W. R. Henn

ASA-SLA METALLURGICAL LITERATURE CLASSIFICATION

PROCESSES AND PROPERTIES INDEX

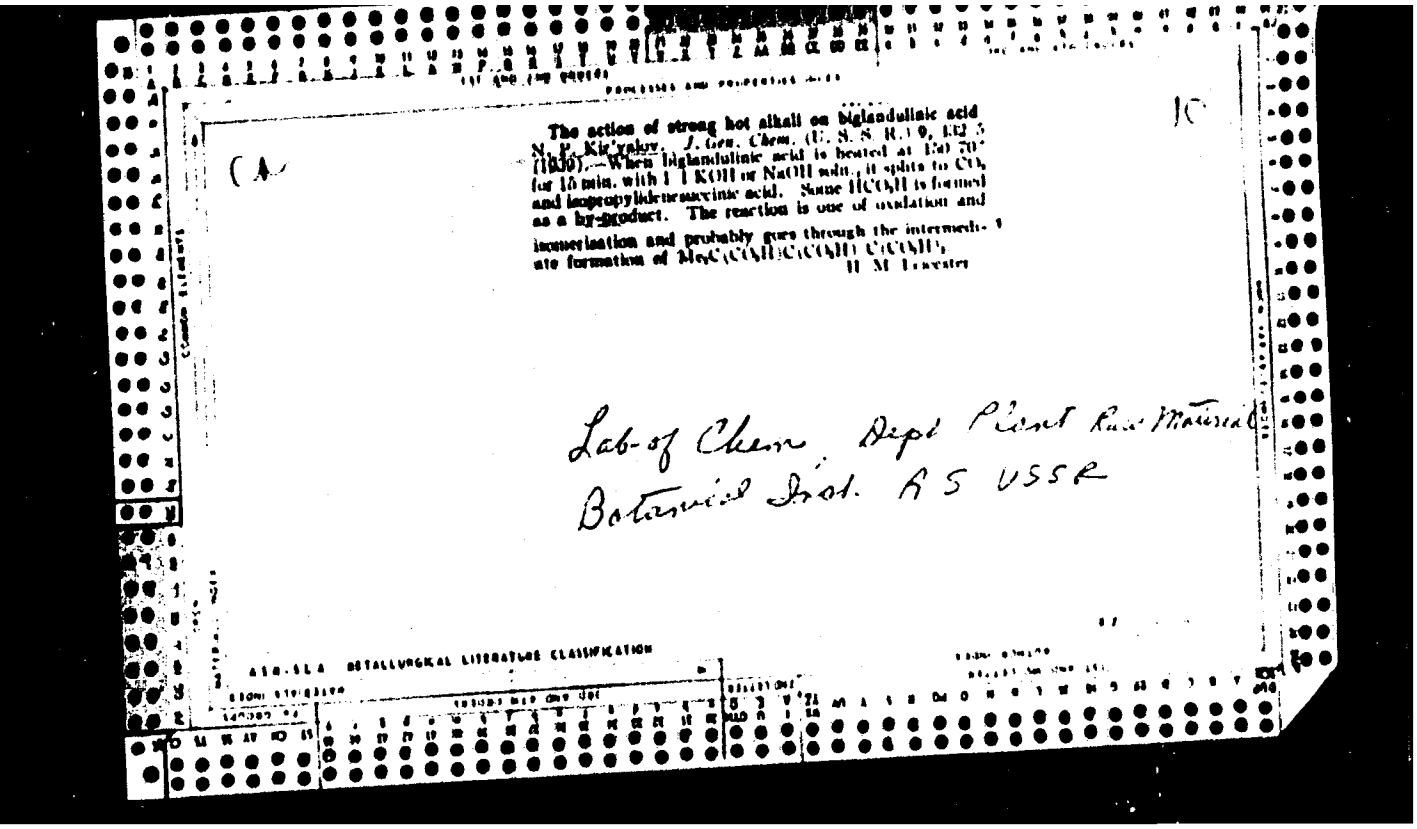
Acids of the milky juice of Euphorbia biglandulosa Desf. I. N. P. Kir'yalov. *J. Gen. Chem.* (U.S.S.R.) 18, 700-[illegible] (1948).—The dry milky juice of the plant (leaves, stalk and root), growing wild in Crimea, contains 18% of the Ca salt of an unknown dibasic acid, named here *biglandulosic acid* (I), [illegible], m. 170-1, titrates with 2 mols. NaOH, contains at least 1 double bond, is optically inactive and gives with aq. $FeCl_3$ a crimson color, which disappears with aq. Br and then gradually reappears, indicating the presence of enol form. I crystallizes with 1 mol. H_2O and is sol. in alc., Me_2CO and EtOAc, poorly sol. in cold H_2O and Et_2O and insol. in $CHCl_3$ and hydrocarbons. The Na and K salts are easily sol. and the Ca, Ba and Sr salts poorly sol. in H_2O. It gives a di-Me ester, m. [illegible]°, and a di-Et ester, m. 57-8°. When heated slightly above the m. p. or boiled in Ac_2O, I gives an acid anhydride, [illegible], m. 210-12°, insol. in org. solvents. Reduction of I with HI and red P gave a lactone acid, [illegible] (II), m. 120-31°. II does not react in the cold with $KMnO_4$, Br and $FeCl_3$. When hydrogenated in alc. in the presence of Pd deposited on Ni for 40-5 min., 1 g. I absorbs 105 ml. H (107 ml. H is required for 1 double bond), giving *dihydrobiglandulinic acid*, m. 165° (alc.). It is sol. in hot H_2O, poorly sol. in Et_2O and insol. in org. solvents. On heating in H_2O it is converted into II. Chas. Blanc

METALLURGICAL LITERATURE CLASSIFICATION



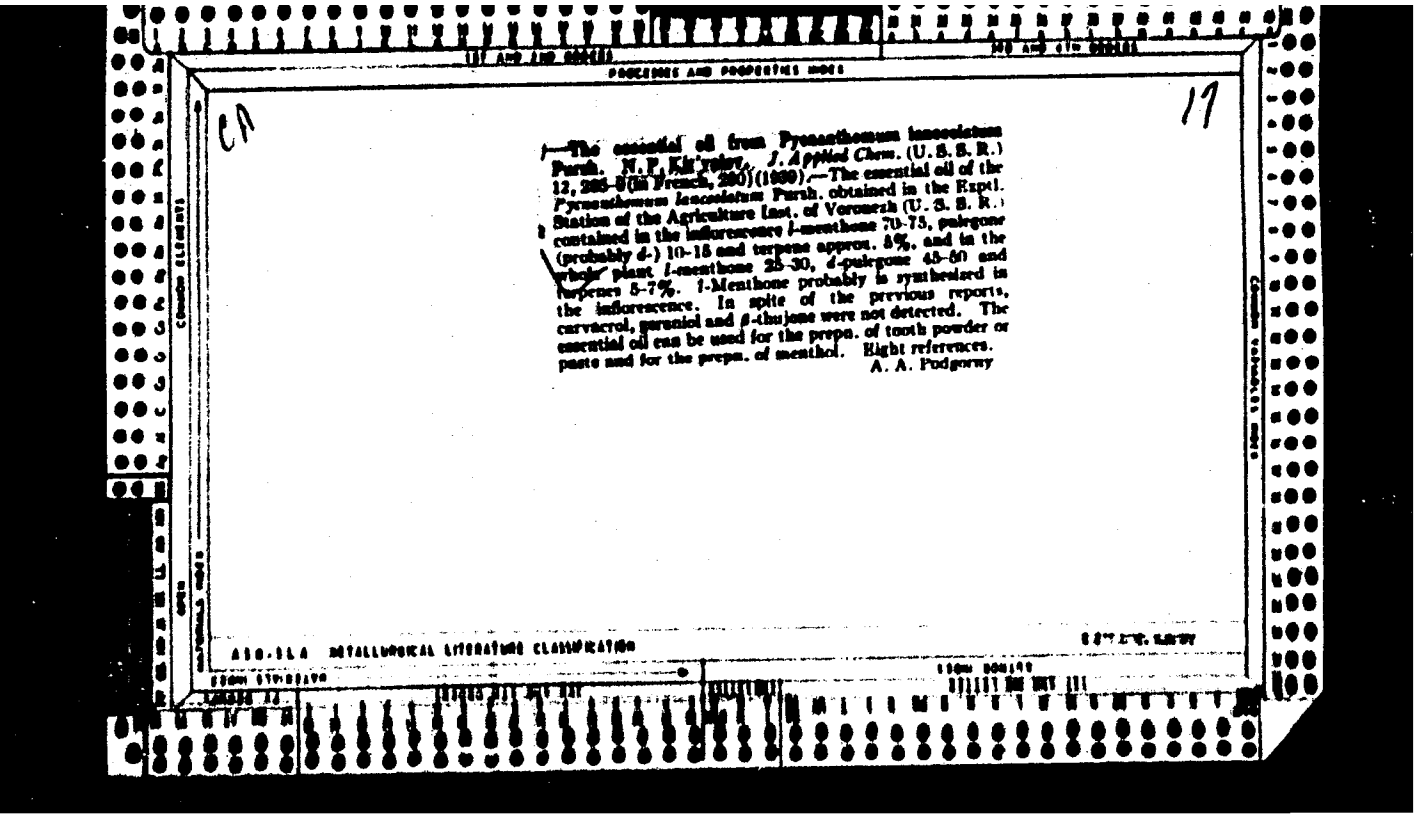
The acids of the milky juice of Euphorbia biglandulosa Boiss. II. The structure of biglandulinic acid. N. P. Kir'yalov. *J. Gen. Chem.* (U. S. S. R.) 9, 401-5 (1939); cf. *C. A.* 33, 1297°.—Biglandulinic acid (I) forms a *bromide acid*, m. 183-7° (decompn.), which cannot be resolved. I contains a lactone ring which opens with difficulty on heating with KOH and easily closes again. It is therefore in the γ-position. Dihydrobiglandulinic acid easily loses CO_2 when heated and forms diinic acid (II), m. 129-31°, which also contains a γ-lactone ring. Oxidation of II with alk. $KMnO_4$ gives $Me_2C(CO_2H)CH(CO_2H)CH_2$-$CO_2H$. These facts show that II is the γ-lactone of 2-methyl-5-pentanol-2,3-dicarboxylic acid and I is the γ-lactone of 2-methyl-3-pentene-5-ol 2,3,4-tricarboxylic acid. H. M. Leicester

Lab. of Chemistry, Dept. of Plant Raw Material, Botanical Inst. im. Komarov, AS USSR



The action of strong hot alkali on biglandulinic acid
N. P. Kir'yalov. *J. Gen. Chem.* (U. S. S. R.) 9, 1[2]: 5 (1939).—When biglandulinic acid is heated at 150° for 15 min. with 1 *N* KOH or NaOH soln., it splits to CO_2 and isopropylidenesuccinic acid. Some HCO$_2$H is formed as a by-product. The reaction is one of oxidation and isomerization and probably goes through the intermediate formation of $Me_2C(CO_2H)CH(CO_2H)CH(CO_2H)_2$.
H. M. Leicester

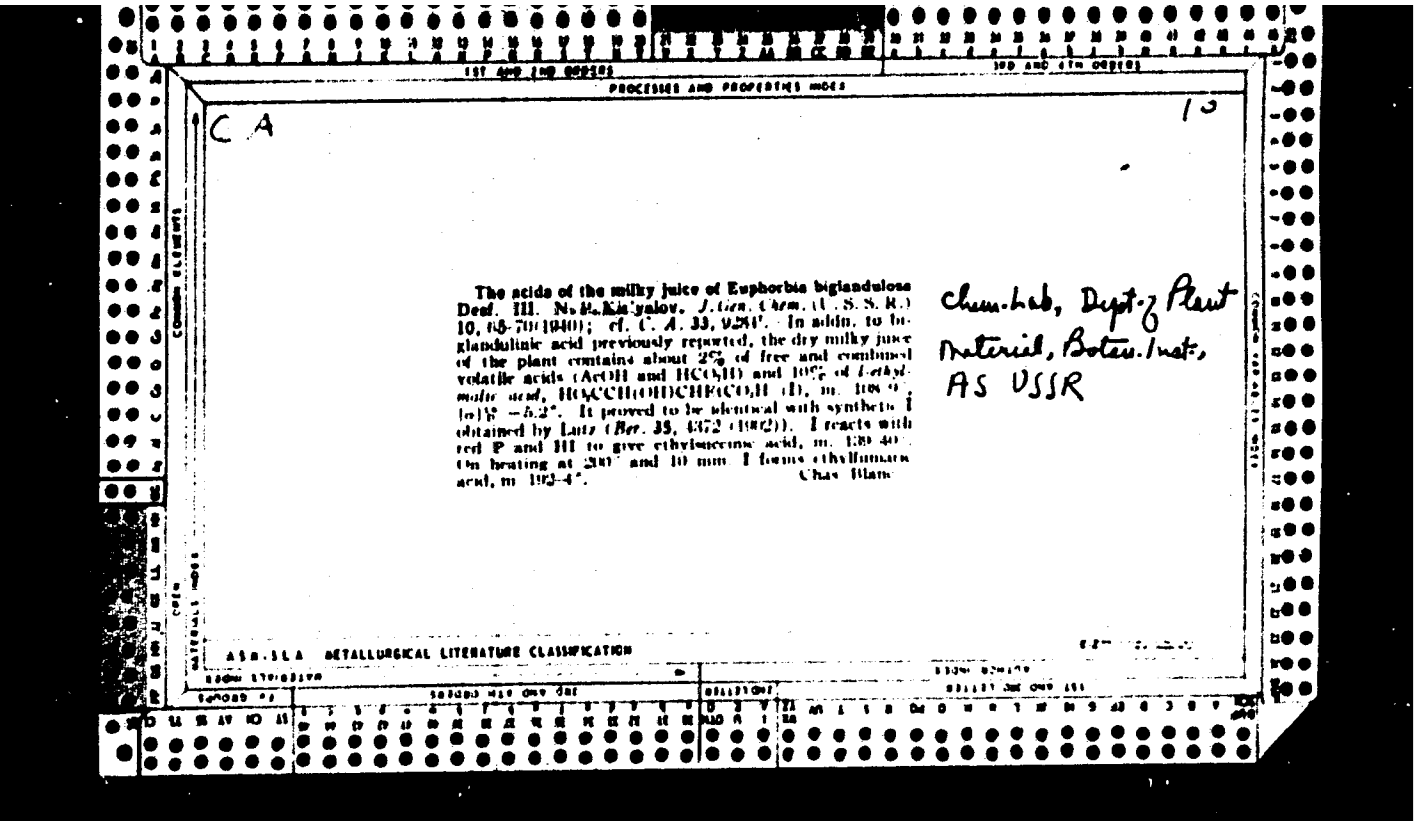
Lab-of Chem. Dept Plant Raw Materials
Botanical Inst. A S USSR



CA

17

—The essential oil from Pycnanthemum lanceolatum Pursh. N. P. Kir'yalov. *J. Applied Chem.* (U. S. S. R.) 12, 286-9(In French, 280)(1939).—The essential oil of the *Pycnanthemum lanceolatum* Pursh. obtained in the Expt. Station of the Agriculture Inst. of Voronezh (U. S. S. R.) contained in the inflorescence *l*-menthone 70-75, pulegone (probably *d*-) 10-15 and terpene approx. 5%, and in the whole plant *l*-menthone 25-30, *d*-pulegone 45-50 and terpenes 5-7%. *l*-Menthone probably is synthesized in the inflorescence. In spite of the previous reports, carvacrol, geraniol and β-thujone were not detected. The essential oil can be used for the prepn. of tooth powder or paste and for the prepn. of menthol. Eight references.
A. A. Podgorny



PROCESSES AND PROPERTIES INDEX

C A

13

The acids of the milky juice of Euphorbia biglandulosa Desf. III. N. K. Kiryalov. *J. Gen. Chem.* (U. S. S. R.) 10, 65-70 (1940); cf. *C. A.* 33, 9250. In addn. to bigglandulinic acid previously reported, the dry milky juice of the plant contains about 2% of free and combined volatile acids (AcOH and HCO$_2$H) and 10% of *l-ethylmalic acid*, HO$_2$CCH(OH)CHEtCO$_2$H (I), m. 108°; $[\alpha]_D^{20}$ −5.2°. It proved to be identical with synthetic I obtained by Lutz (*Ber.* 35, 4372 (1902)). I reacts with red P and HI to give ethylsuccinic acid, m. 139-40°. On heating at 230° and 10 mm. I forms ethylfumaric acid, m. 192-4°. Chas. Blanc

Chem. Lab., Dept. of Plant Material, Botan. Inst., AS USSR

A S M - S L A METALLURGICAL LITERATURE CLASSIFICATION

PROCESSES AND PROPERTIES INDEX

aa 17

Composition of *Ferula schair* Boross. M. F. Kir'yalov. *J. Applied Chem.* (U. S. S. R.) 13, 879-83(in French, 882). 1940 —The roots of *Ferula schair* Boross were steam-distd., yielding on dry wt. of roots 3.17% of essential oil (d_4^{20} 0.8848, n_D^{20} 1.4773, α_D^{20} + 4.45°, acid no. 1.06, ester no. after acetylation 74.3). The oil contained about 70% of terpenes, b_{10} 70-8°. The high-boiling fractions of oil contained about 6% of a sesquiterpene alcohol *shorol*, $C_{15}H_{26}O$, m. 90-2°, α_D −26.9°. The roots contained starch 34-7, resin 33-35 and ash 4.26-6.64%, no alkaloids or tanning substances. The resin was easily sol. in alkali.

A. A. Podgorny

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

PROCESSES AND PROPERTIES INDEX

CO 17

Essential oil of milfoil, Achillea micrantha M. B. N. P. Kir'yalov. J. Applied Chem. (U. S. S. R.) 13, [illegible] (in French, 885)(1940).—Essential oil of Achillea micrantha M. B., obtained from flowers by steam-distn., had d_{20}^{20} 0.9[illegible], n_D^{20} 1.4867, α_D −11.23°, acid no. 2.41, ester no. 20.12, ester no. after acetylation 80.9. It contained cineole 63, α-terpineol about 10, traces of l-camphor and unidentified terpenes 20-25%. A. A. P.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

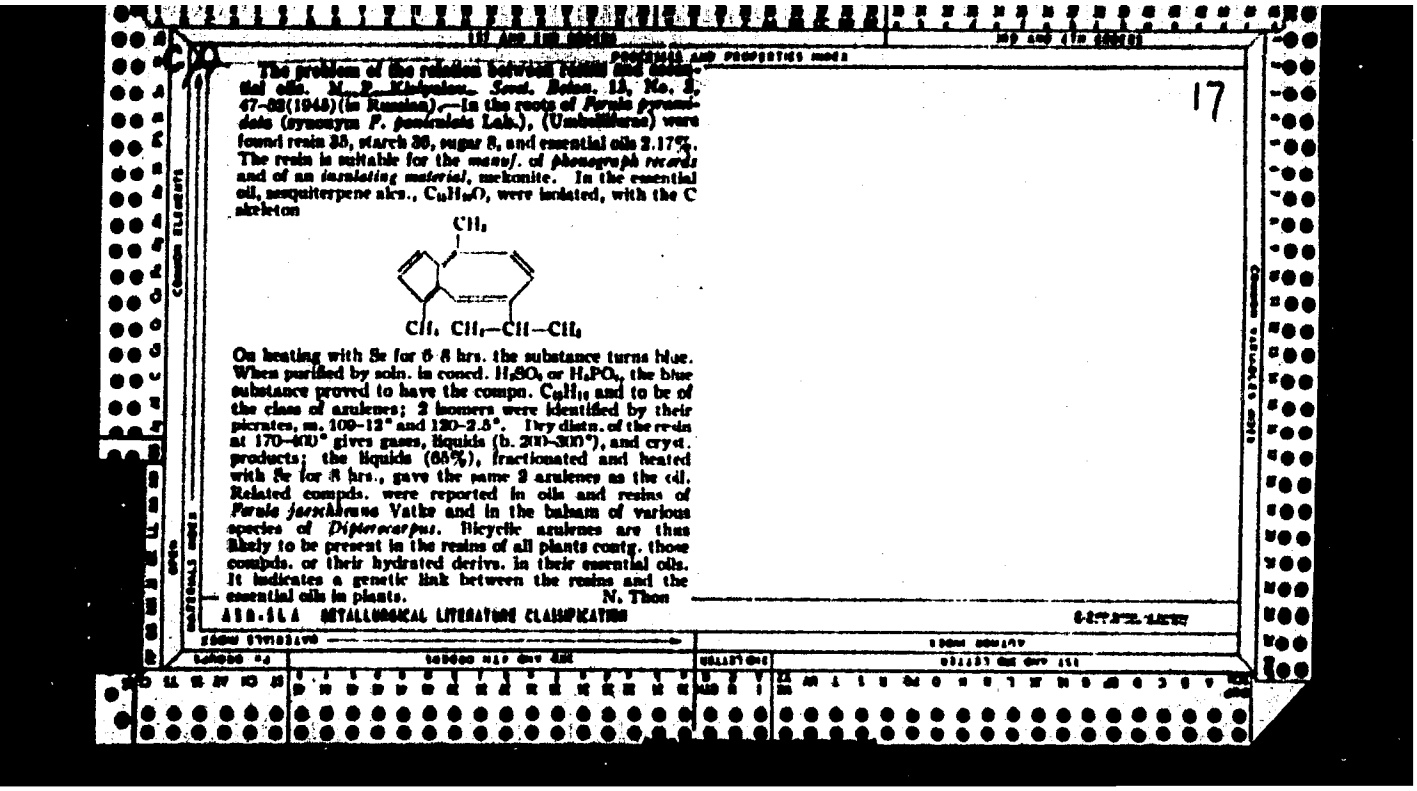
KIRJALOV, N. P.

"Étude de l'Euphorbia Ferganensis B. Feditsch." by Kirjalov, N. P. (p 163)

SO: Journal of General Chemistry (Zhurnal Obshchei Khimii) 1941, Vol 11, no 1.

KIR'YALOV, N.P.

"A Study of the Sesquiterpene Alcohol Shairol in the Ferula Pyramidata, ,Eug.Kor.," Zhur.Obshch.Khim.,13,No.3,1943. Chem.Lab.Div.Vegetative Raw Materials,Botanical Inst. im.V.L.Komarov,Acad.Sci.,SSSR,-1942-



17

The problem of the relation between resins and essential oils. M. P. Kirkpatrick. *Sovet. Botan.* 13, No. 3, 47–52(1945)(in Russian).—In the roots of *Ferula pyramidata* (synonym *F. penninsula* Lab.), (Umbelliferae) were found resin 35, starch 30, sugar 8, and essential oils 2.17%. The resin is suitable for the *manuf.* of *phonograph records* and of an *insulating material*, mekonite. In the essential oil, sesquiterpene alcs., $C_{15}H_{26}O$, were isolated, with the C skeleton

On heating with Se for 6–8 hrs. the substance turns blue. When purified by soln. in concd. H_2SO_4 or H_3PO_4, the blue substance proved to have the compn. $C_{15}H_{18}$ and to be of the class of azulenes; 2 isomers were identified by their picrates, m. 109–12° and 120–2.5°. Dry distn. of the resin at 170–80° gives gases, liquids (b. 200–300°), and cryst. products; the liquids (65%), fractionated and heated with Se for 8 hrs., gave the same 2 azulenes as the oil. Related compds. were reported in oils and resins of *Ferula jaeschkeana* Vatke and in the balsam of various species of *Dipterocarpus*. Bicyclic azulenes are thus likely to be present in the resins of all plants contg. those compds. or their hydrated derivs. in their essential oils. It indicates a genetic link between the resins and the essential oils in plants. N. Thon

KIR'YALOV, N. P.

36T14

USSR/Chemistry - Azulene Aug 1946
Chemistry - Cyclopentacycloheptene

"Azulene," N. P. Kir'yalov, 12½ pp

"Priroda" No 8

Even as early as the 15th century, scientists recognized the existence of a growth which colored oils a deep blue or violet. Article discusses the distribution and characteristics of azulene and a short description of its historical development, with names of the more prominent scientists who dealt with them. Explains the structure of azulene, shows the variations according to the various scientists, and discusses the possibilities of utilizing it.

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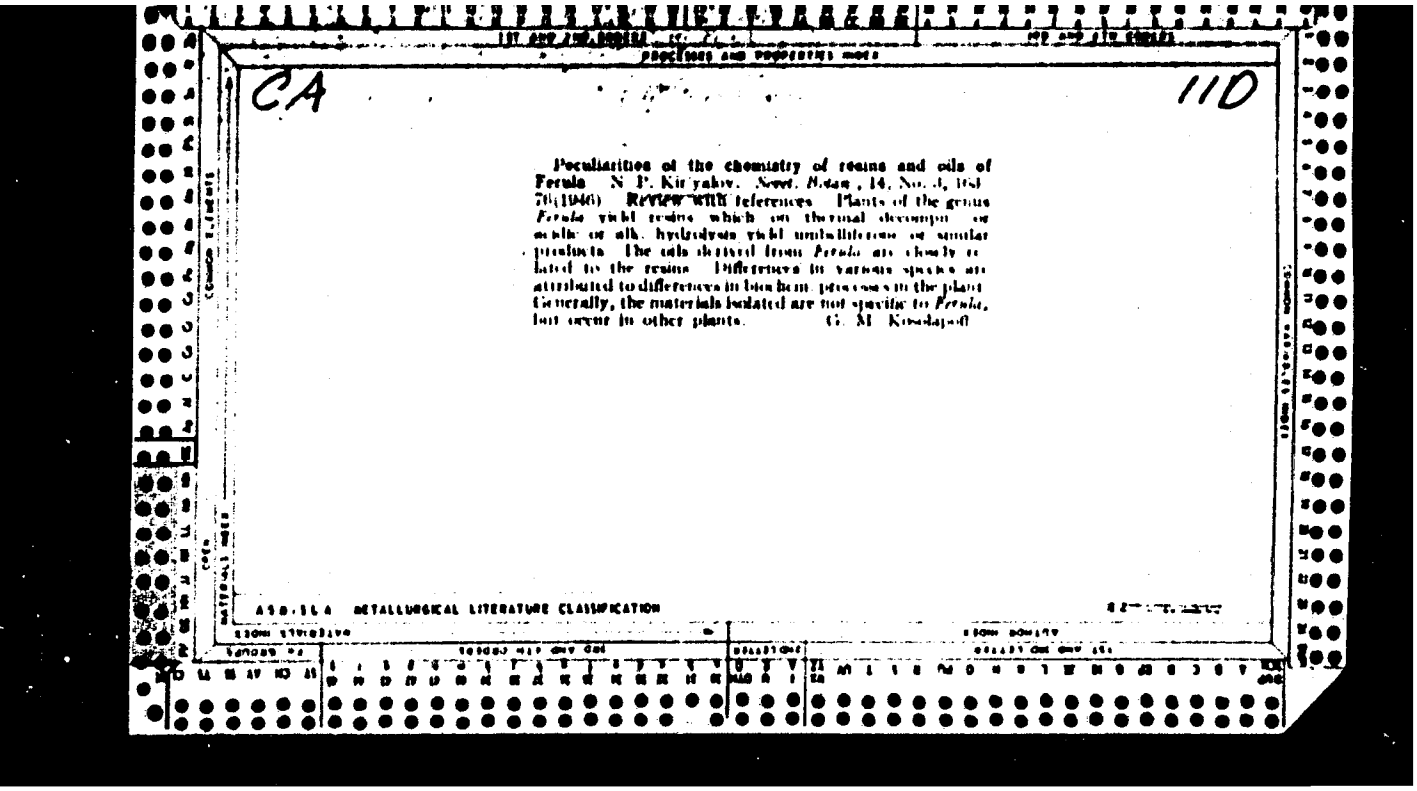


CA

11D

Peculiarities of the chemistry of resins and oils of Ferula. N. P. Kir'yalov. *Sovet. Botan.*, 14, No. 1, 68-70 (1946). Review with references. Plants of the genus *Ferula* yield resins which on thermal decomposition or acidic or alk. hydrolysis yield umbelliferone or similar products. The oils derived from *Ferula* are closely related to the resins. Differences in various species are attributed to differences in biochem. processes in the plant. Generally, the materials isolated are not specific to *Ferula*, but occur in other plants. G. M. Kosolapoff

A58-51A METALLURGICAL LITERATURE CLASSIFICATION

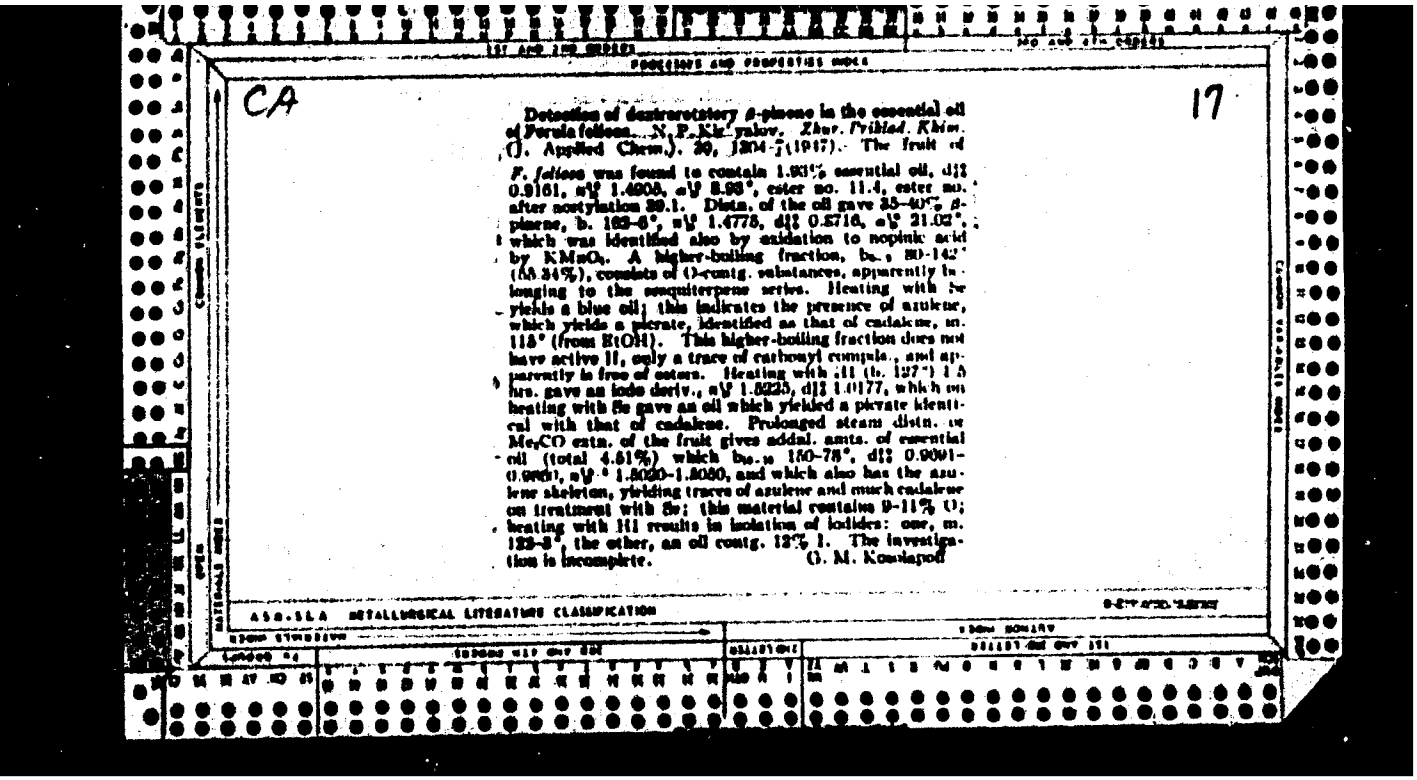
10

Crystalline products of thermal decomposition of the resin from *Ferula pyramidata* (Kar. et Kir.) Kor. var. N. P. Kir'yalov.—*J. Gen. Chem.* (U.S.S.R.) 16, 1657-64 (1946)(in Russian).—Particulated roots of the plant were thoroughly extd. with 3% KOH, the ext. acidified by 10% H_2SO_4, and the pptd. resin was washed with hot water and freed of less-volatile ingredients by steam distn. The resin was extd. with Et_2O in a Soxhlet app.; evapn. of the solvent gave the resin as a sticky dark substance, d^{20} 1.068, n^{20}_D 1.5550, acid no. 120-30, sol. in Et_2O, Me_2CO, and Na_2CO_3 solns. The yield was 20-25% based on dry root wt. The resin was thermally decompd. by distn. in the range of 170-400°, with 50-60% yield of products. Repeated extn. of the mixt. with warm water gave resorcinol. Boiling the mixt. with water gave, on cooling, crystals, $C_8H_8O_3$, identified as resacetophenone (I), m. 143-6° (5-6%) (from water) (semicarbazone, m. 224-6°; oxime, m. 200-1°; phenylhydrazone, m. 158-9°). The Ag salt of I when heated for 3-4 hrs. in Me_2CO with MeI readily gave the *4-Me ether* (II), m. 49° (from aq. EtOH) (*bromide*, m. 169-70°; *semicarbazone*, m. 205-6°); the *4-Et ether*, analogously, m. 49-50° (from aq. EtOH) (*semicarbazone*, m. 202° (from aq. EtOH); *bromide*, m. 109-10° (from 70% EtOH)); *4-benzoate*, prepd. by treatment with BzCl in the presence of KOH, m. 106-8° (from EtOH) (*semicarbazone*, m. 283-4° (from EtOH)). II was the remaining cryst. product which could be isolated from the thermal decompn. mixt.; its isolation was best performed by sepg. the heavy (*d.* greater than 1.0) fraction of the distillate, treating it with steam and subjecting the distillate to vacuum distn. (b_4 120-70°), followed by treatment with semicarbazide-HCl, the resulting semicarbazone being decompd. by acids in the usual manner. II forms an *acetate* which could not be crystd. and was converted to a *semicarbazone*, m. 158-9°. I on oxidation with 2% $KMnO_4$ gave HCO_2H, AcOH, and $(CO_2H)_2$, while fusion with KOH at 280-300° gave resorcinol and AcOH. The Me and Et ethers of I are readily dealkylated by heating with freshly distd. HI 3 hrs. on a steam bath.

O. M. Kosolapoff

Chem. Lab., Inst. Vegetative Resources, Botanical Inst. im. V. L. Komarov, AS USSR

METALLURGICAL LITERATURE CLASSIFICATION



CA

17

Detection of dextrorotatory β-pinene in the essential oil of Ferula foliosa. N. P. Kir'yalov. *Zhur. Prikład. Khim.* (J. Applied Chem.). 20, 1314-7 (1947). The fruit of *F. foliosa* was found to contain 1.93% essential oil, d_4^{15} 0.9161, n_D^{20} 1.4905, α_D^{20} 8.93°, ester no. 11.4, ester no. after acetylation 39.1. Distn. of the oil gave 35–40% β-pinene, b. 163–6°, n_D^{20} 1.4775, d_4^{15} 0.8716, α_D^{20} 21.02°, which was identified also by oxidation to nopinic acid by $KMnO_4$. A higher-boiling fraction, b$_{4.5}$ 80–142° (Δ 24%), consists of (-)-cmtg. substances, apparently belonging to the sesquiterpene series. Heating with Se yields a blue oil; this indicates the presence of azulene, which yields a picrate, identified as that of cadalene, m. 118° (from EtOH). This higher-boiling fraction does not have active H, only a trace of carbonyl compds., and apparently is free of esters. Heating with I (b. 127°) 1.5 hrs. gave an iodo deriv., n_D^{20} 1.5225, d_4^{15} 1.0177, which on heating with Se gave an oil which yielded a picrate identical with that of cadalene. Prolonged steam distn. of Me_2CO extn. of the fruit gives addnl. amts. of essential oil (total 4.61%) which b$_{4.5}$ 150–78°, d_4^{15} 0.9091–0.9261, n_D^{20} 1.5020–1.5080, and which also has the azulene skeleton, yielding traces of azulene and much cadalene on treatment with Se; this material contains 9–11% O; heating with HI results in isolation of iodides: one, m. 123–3°, the other, an oil contg. 12% I. The investigation is incomplete. G. M. Kondakov

KIR'YALOV, N.P.

"Oxides of the Carotinoids in Plants," Priroda, No.3, 1948.

KIR'YALOV, N. P.

PA 36/49T46

USSR/Medicine - Plants Jan/Feb 48
Medicine - Carrots

"Anatomical and Chemical Characteristics of the Fruit of Certain Species of Genus Ferula," N. P. Kir'yalov, E. V. Budkevich, Bot Inst imeni V. L. Komarov, Acad Sci USSR, Leningrad, 10 pp

"Botan Zhur" Vol XXXIII, No 1

Fruits of F. foliosa Lipsky and F. Jaeschkeana Vatke differ sharply in qualitative chemical composition, although they have some common features in the hydrocarbon frame of individual groups of substances. These peculiarities of chemical

[redacted] 36/49T46

USSR/Medicine - Plants (Contd) Jan/Feb 48

composition suggest that the courses of biochemical and physiological processes in the two Ferula species differ. Fruits also differ in size and anatomical structure, and there are differences in number, size, and disposition of the balsam passages. Essential oil and resin of both species are found as a mixture in these passages. Includes three sketches. Submitted 28 Jan 47.

[redacted] 36/49T46

KIR'YALOV, N. P.

PA 11/49T6

USSR/Chemistry - Oils, Essential Jul 48
Chemistry - Rosemary

"Basic Components of the Essential Oil in the Ledum Palustre L. (Wild Rosemary)," N. P. Kir'yalov, 3 3/4 pp

"Dok Ak Nauk SSSR" Vol LXI, No 2

Wild rosemary is common in north USSR. Oil from Leningrad plant, however, differs from Sakhalin specimen. Beside an aliphatic hydrocarbon, it contains a liquid alcohol $C_{12}H_{26}O$, which has not been described previously. Author proposed to call it palustrol. Describes experiments in detail. Submitted 14 Apr 48.

11/49T6

CA

1-2

Structure of ledol. N. P. Kir'yalov (Chem. Lab., Botan. Inst., Acad. Sci. U.S.S.R.). *Zhur. Obshchei Khim.* (J. Gen. Chem.) 19, 2123-9(1949); cf. C.A. 43, 1156e.—Ledol is probably a tricyclic tertiary alc. of the azulene series. Steam distn. of leaves of *Ledum palustre* gave 0.7-1.0% of the ester oils, which on freezing out and fractionation gave *ledol*, m. 105-6.5° (from EtOH), [α]$_D^{20}$ 0.5° (in 10% EtOH); it is stable to hot 5% alc. KOH, but reacts with acids; it is stable to Me$_2$CO-KMnO$_4$ or BzO$_2$H. Br in CHCl$_3$ does not give a blue color, but this appears if CHCl$_3$ is replaced by AcOH. Refluxing 9.6 g. ledol with 15 g. 90% HCO$_2$H 15 min. gave 8.4 ml. hydrocarbon, $C_{15}H_{24}$, *leddiene*, b$_5$ 103-4°, d$_{20}^{20}$ 0.9091, n$_D^{20}$ 1.4971, [α]$_D^{20}$ 35.6°, giving a violet color with Br in CHCl$_3$ or AcOH. Heating the diene with Se at reflux gave azulene; picrate, m. 121-2° (from EtOH). Ledol (5 g.), 18 ml. EtOH, and 3 ml. alc. H_2SO_4 (2:1) warmed on a steam bath until cloudy gave 4.5 ml. *ledene*, $C_{15}H_{24}$, b$_5$ 110-13°, d$_{20}^{20}$ 0.9278, n$_D^{20}$ 1.5005, [α]$_D^{20}$ 48.41°, which refluxed with Se 4 hrs. gave azulene as well as a colorless oil, b$_5$ 78-111°, which gave more azulene on further action of Se. Refluxing ledene with 90% HCO$_2$H gave nearly pure leddiene.

G. M. Kosolapoff

USSR/Medicine - Plant Physiology May 49
Medicine - Alkaloids

"The Determination of N-Oxides of Alkaloids in Plants," N. P. Kir'yalov, 1 p

"Priroda" No 5 Vol 38, pp 46-47

Recent investigations have shown that N-oxides of alkaloids are found in many plants. They are almost neutral substances. Refers to Areshkin's research on the N-oxide alkaloid content of Senecio platyphyllus. Determined that toward the end of the vegetative period N-oxide alkaloid content attains 3.8% of total alkaloid content.

[redacted] 57/49T85

USSR/Medicine - Plant Physiology May 49
(Contd)

When the plant is resting, N-oxide alkaloid content drops to 2.74%. N-oxide alkaloids have a physiological significance. They are present in plants only because plants have no adequate provisions for expelling this substance from their systems.

57/49T85

KIR'YALOV, N. P.

KIR'YALOV, N. P.

57/49T15

USSR/Chemistry - Dienes May 49
Medicine - Biochemistry

"New Data on the Activity of Diene Hydrocarbons," N. P. Kir'yalov, 1 p

"Priroda" No 5

Refers to recently completed research by Arbuzov and Fedyukin on the action of diene hydrocarbons and nitroso compounds. Made specific experiments using nitrosobenzene. Reaction represents a new demonstration of the high reaction characteristics of hydrocarbons linked with dual bonds on the one hand and the dual bond of the nitroso group

[redacted] 57/49T15

USSR/Chemistry - Dienes (Contd) May 49

on the other. Reaction makes it possible to obtain, by synthesis, many derivatives having a predetermined structure. It also represents a new method for identifying and comprehensive study of compounds united by dual bond.

[redacted] 57/49T15

KIR'YALOV, N. P.

35988 Obrazovaniye I sostannyye chasti efirnogo masla bagul'nika. Priroda, 1949, No. 11, S. 53-54

SO: Letopis' Zhurnal'nykh Statey, Vol. 45, Moskva, 1949

"The Essential Oil of Wild Rosemary"

CA

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Sesquiterpene alcohol shairol. II. Number of double bonds in shairol. N. P. Kir'yalov (Komarov Botan. Inst., Acad. Sci. U.S.S.R.). *Zhur. Obshchei Khim.* (J. Gen. Chem.) 20, 188-94(1950); cf. C.A. 38, 1488. —*Shairol* (I) has 1 double bond. Hydrogenation over Pt gives the *dihydro deriv.*, $C_{15}H_{28}O$, b_4 125-7°, n_D^{20} 1.4982, d_{20}^{20} 0.9551, α_D 16.8°, does not react with Br-CHCl$_3$, and gives a blue color with Br in AcOH only after over 2 hrs.; 3.2 g. boiled with 5 ml. 90% HCO$_2$H 15 min., steam-distd., and neutralized, gave *dihydroshairene* (II), $C_{15}H_{26}$, b_4 98-102°, d_{20}^{20} 0.8982, n_D^{20} 1.5080, α_D [illegible], which reacts with Br, in CHCl$_3$ or AcOH, giving colorless soln. that turns blue rapidly. II hydrogenated over Adams Pt catalyst in AcOH yields *tetrahydroshairene*, $C_{15}H_{28}$, b_4 81-6°, d_{20}^{20} 0.8865, n_D^{20} 1.4788, α_D 26.7°, does not react with Br. I consumes 1.8-1.05 moles BzO$_2$H, yielding a liquid, $C_{15}H_{26}O_2$ (III), n_D^{20} 1.4938-1.4930, which on distn. changes to an unsatd. substance, b_4 115-30°, contg. 78.0% C and 10.10% H; steam distn. also changes the substance, increasing the unsatn. and decreasing the O content. With KMnO$_4$ III gave a *shairol oxide* (?), $C_{15}H_{26}O_2$, m. 88-9.5° (from dil. EtOH).

G. M. Kosolapoff

CA

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Sesquiterpene alcohol, palustrol, from the essential oil of Ledum palustre. N. P. Kir'yalov (Acad. Sci. U.S.S.R., Moscow). *Zhur. Obshchei Khim.* (J. Gen. Chem.) 20, 738-43(1950); cf. C.A. 44, 5849e.—After removal of ledol by freezing-out, the oil is distd., yielding a fraction (30-50% by wt. of the oil), which is 93-7% pure *palustrol* (I) and b$_{10}$ 120-30°; after treatment with $KMnO_4$ in Me_2CO, pure I, $C_{15}H_{26}O$, b$_{9-5}$ 129-31°, b. 275-7° (decompn.), d_4^{15} 0.9654, n_D^{20} 1.4920, n_γ^{20} 1.4912, α_D^{20} −17.6°; I is stable to Me_2CO-$KMnO_4$, gives a violet color with Br in AcOH or $CHCl_3$, and has an azulene nucleus, for dehydrogenation with Se at 250-60° yields an azulene, *palustrazulene*, $C_{15}H_{18}$, violet, b$_5$ 133-7°, d_4^{15} 0.9747, either from *palustradiene* (II) or *palustrene* (III); the *picrate* of this *azulene* m. 118-19° (from EtOH). Hydrogenation of I over PtO_2 in AcOH yields *dihydropalustrene*, $C_{15}H_{28}$, b$_6$ 112-15°, n_D^{20} 1.4853, d_4^{15} 0.9068. Boiling I with EtOH contg. 10% (by wt.) of H_2SO_4 yields III, $C_{15}H_{24}$, b$_{10}$ 110°, b$_5$ 100-3°, b$_{760}$ 253-6°, d_4^{15} 0.9243, n_D^{20} 1.4975, α_D^{20} 42.12°, which appears to isomerize on distn. at ordinary pressure, reacts with $KMnO_4$, and gives a violet color with Br in AcOH or $CHCl_3$, while hydrogenation over PtO_2 yields *dihydropalustrene*, b$_6$ 91-4°, d_4^{15} 0.9026, n_D^{20} 1.4852, α_D^{20} 5.44°. I refluxed 15 min. with 20 ml. 80% HCO$_2$H gave 8.5 ml. II, $C_{15}H_{24}$, b$_{760}$ 251-3°, d_4^{15} 0.9158, n_D^{20} 1.4992, α_D^{20} 5.0 21.4°, easily reacting with $KMnO_4$ and giving a violet color with Br. Hydrogenation of II over PtO_2 in AcOH gave *tetrahydropalustradiene*, $C_{15}H_{28}$, b$_{760}$ 241-3°, d_4^{15} 0.8983, n_D^{20} 1.4773, α_D^{20} 3.2°, gives no color with Br but still yields the azulene with Se. Interruption of the hydrogenation yields *dihydropalustradiene*, $C_{15}H_{26}$, b$_5$ 104-6°, d_4^{15} 0.9055, n_D^{20} 1.4934, α_D^{20} −5.12°, giving a violet color with Br and reacting with $KMnO_4$. Heating III with HCO$_2$H yields II, but a similar treatment of dihydropalustrene gave but a poor yield of crude dihydropalustradiene. G. M. K.

CA

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The sesquiterpene alcohol, palustrol, from the ethereal oil of Ledum palustre N. P. Kir'yalov. J. Gen. Chem. U.S.S.R. 20, 777-85(1950)(Engl. translation). See C. A. 44, 7811h

1951

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CA

Structure of ledol. II. Hydro derivatives of ledol, ledene, and leddiene. N. P. Kir'yalov (V. L. Komarov Botan. Inst., Acad. Sci. U.S.S.R., Moscow). *Zhur. Obshchei Khim.* (J. Gen. Chem.) 21, 2074-7(1951); cf. *C.A.* 44, 7290*e*.—Hydrogenation of ledol in AcOH over Pt black gave *dihydroledene*, b_6 102–6°, d_4^{15} 0.9023, n_D^{15} 1.4840, α_D −13.92°; it does not react with Br in $CHCl_3$ or AcOH and does not decolorize $KMnO_4$ in Me_2CO. The hydrocarbon $C_{15}H_{28}$ is quite stable to acid reagents. Similar hydrogenation of ledene gave a *dihydroledrene*, b_{6-7} 103–6°, d_4^{15} 0.9033, n_D^{15} 1.4829, α_D 2.87°; with Br in AcOH or $CHCl_3$ it gives almost no color and only after 24 hrs. some blue-violet tinge appears, but on dehydrogenation with Se a violet liquid forms. Hydrogenation of *leddirene*, d_4^{15} 0.9039, n_D^{15} 1.4991, as above, gave *tetrahydroleddirene*, $C_{15}H_{28}$, b_6 97–100°, n_D^{15} 1.4768, d_4^{15} 0.8816, α_D 3.18°, which does not react with Br or $KMnO_4$. Reduction with Pt oxide gave *dihydroleddirene*, $C_{15}H_{30}$, b_{6-7} 100–3°, d_4^{15} 0.8903, n_D^{15} 1.4853, α_D 1.92°, which gives a violet color with Br and decolorizes $KMnO_4$ soln. Hence ledol on dehydration can yield either a tricyclic ledene or bicyclic leddiene. III. Carbon skeleton of leddiene. Crystalline products of oxidation of ledene. *Ibid.* 2077–84.—Leddiene (from the dehydration of ledol with HCO_2H) boiled with Se 6–7 hrs. gave *azulene; picrate*, m. 121–2°; *styphnate*, m. 108–9°; *trinitrobenzene adduct*, m. 150–1°; *2,4,6-trinitrotoluene adduct*, m. 89.5–90.0°. Oxidation of ledene (obtained by dehydration of ledol with 5% ethyl sulfate) with $KMnO_4$ in Me_2CO-H_2O gave a glycol, $C_{15}H_{30}O_2$, m. 151–2°, and *ledic acid*, $C_{15}H_{26}O_5$, m. 185–6°, $[\alpha]_D$ 136.4°, whose *Ag salt* was isolated. Esterification of the acid with EtOH-H_2SO_4 gave the *Et ester*, m. 94.5–5.0°, free of OH groups; the *Me ester* m. 94–4.5°. Ledic acid with semicarbazide-HCl and NaOAc gave a small amt. of a solid, m. 246–8° (decompn.). Oxidation of ledic acid with alk. Br soln. at 50° gave *hydroxyledic acid*, $C_{15}H_{28}O_6$, m. 144.2–4.8°; its *Ag salt* was isolated, while esterification as usual gave an *Et ester*, m. 79–80°, having one OH group. Heating ledic acid with Ac_2O-NaOAc gave the *mono-Ac deriv.*, m. 165.5–6.5° (from dil. EtOH), which, heated with EtOH and a little H_2SO_4, gave the *Et ester*, m. 85.5–6.5° (from dil. EtOH). Oxidation of ledic acid with alk. $KMnO_4$ gave an *isomer of hydroxyledic acid*, having one CO_2H group, m. 178–9.2°, forming a sol. *Ag salt*, and *Et ester*, m. 88.5–7.5°, which has one HO group. The results indicate that the leddiene skeleton is that, or analogous to that, of guaiazulene. Ledic acid appears to be a keto acid. G. M. K.

KIR'YALOV, N. P.

"Study of the Milk-like Juice of the Spurge Euphorbia Biglandulosa," 1952.

U-1982, 22 May 52

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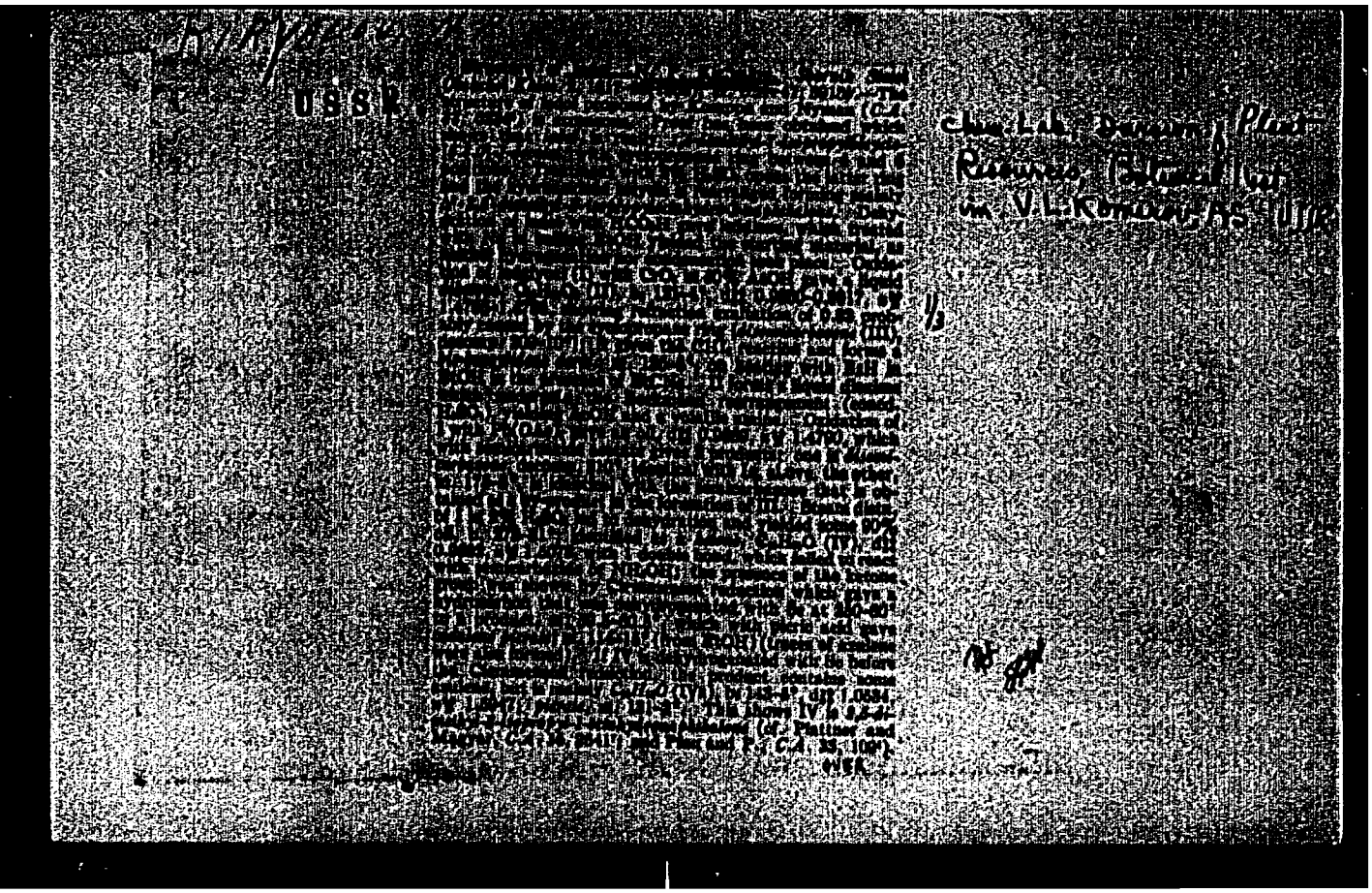
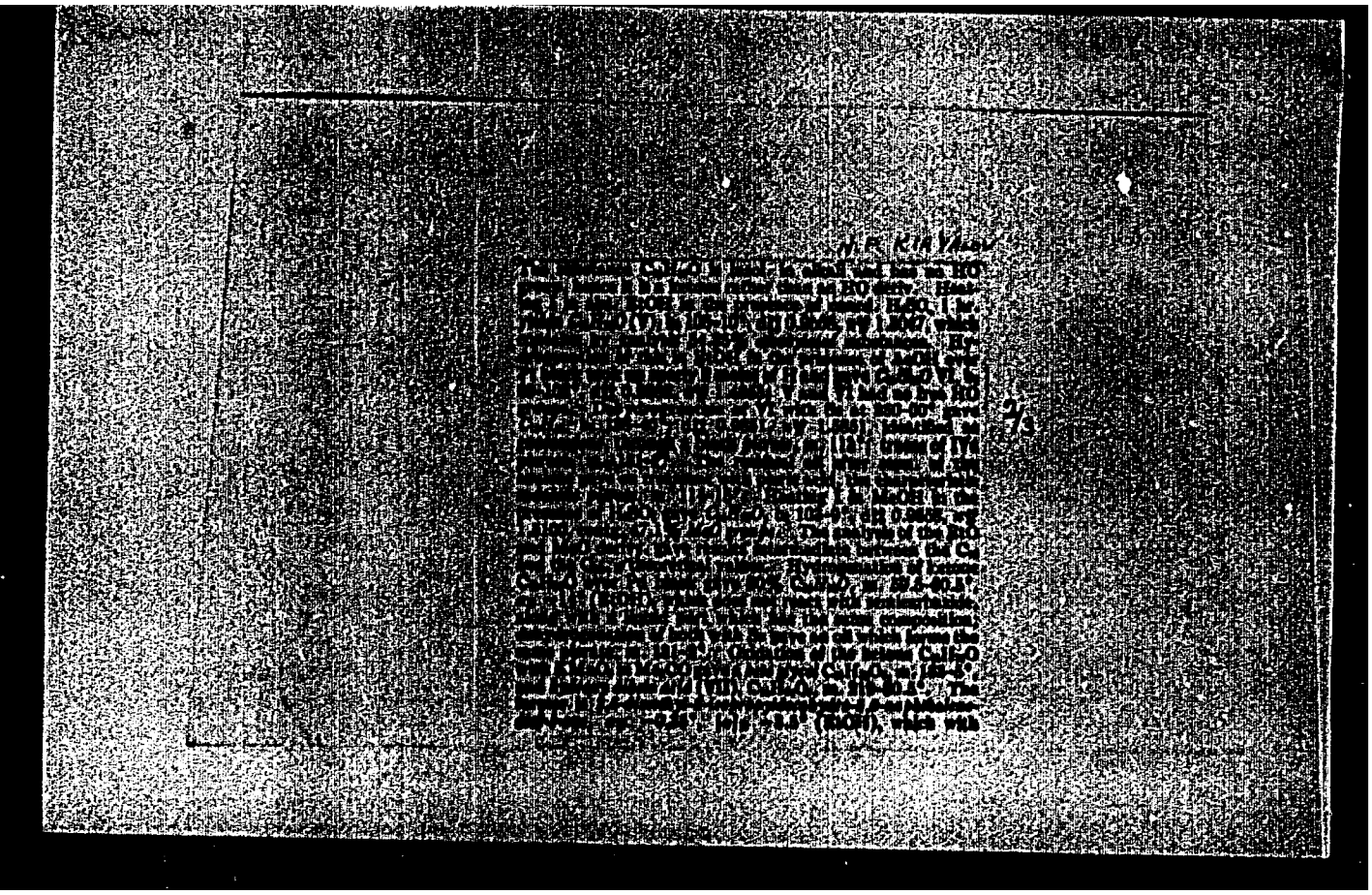
2. USSR (600)

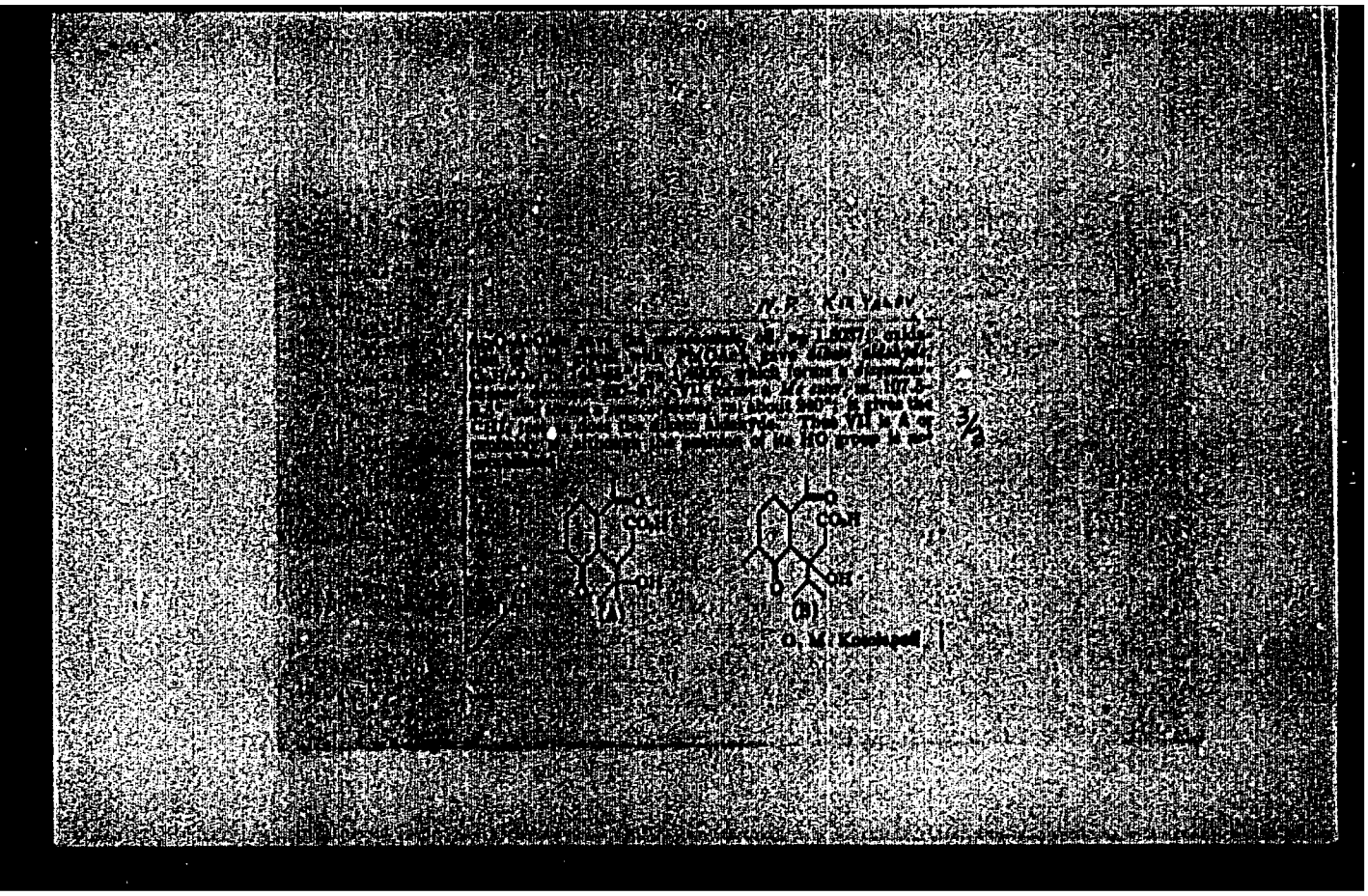
4. Kazakhstan - Gums and Resins

7. "Shair" plant (Ferula ferulaeoides Steud. Eng. Kor.). Priroda No. 1 1953.

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.







USSR/ Chemistry - Physical chemistry

Card : 1/1 Pub. 151 - 35/35

Authors : Kiryalov, N. P.

Title : The structure of palustrol

Periodical : Zhur. ob. khim. 24, No. 7, 1271 - 1276, July 1954

Abstract : The structure of palustrol, a saturated ternary tricyclic alcohol $C_{15}H_{26}O$ derived from the volatile oil of a wild rosemary flower (Ledum palustre L.) is described. Proof is also presented that palustrol is a levorotatory ledol diastereomer belonging to the group of azulene forming sesqui-terpene alcohols. Four USSR references. Tables.

Institution : Acad. of Sc. USSR, The V. L. Komarov Botanics Institute

Submitted : October 1, 1953

KIR'YALOV, N.P.; KONOVALOV, I.N.

Accumulation of economically valuable substances in plants under different environmental conditions. Trudy Bot.inst.Ser.6 no.7: 40-47 '59. (MIRA 13:4)

1. Botanicheskiy institut im. V.L.Komarova AN SSSR (BIN), Leningrad.
(Plants--Chemical composition)

KIR'YALOV, N.P.; LITVINOV, M.A.; MOKHNACH, V.O.; NAUGOL'NAYA, T.N.

Galbanic acid and its derivatives as new antibiotics of plant origin. Bot. zhur. 44 no.1:101-104 Ja '59. (MIRA 12:1)

1. Botanicheskiy institut imeni V.L. Komarova AN SSSR, Leningrad.
(Umbelliferone) (Antibiotics)

KIR'YALOV, N.P.

Structure of "kokanikin" and umbelliprenin, constituents of the neutral part of resin obtained from Ferula kokanica Rgl. et Schmalh. Trudy Bot. inst. Ser. 5 no.8:7-14 '61. (MIRA 14:7)

(Stalinabad region--Ferula)
(Umbelliferone)

KIR'YALOV, N.P.; NAUGOL'NAYA, T.N.

Chemical composition of essential oils of marsh tea (Ledum palustre L.) from the Sayans. Trudy Bot. inst. Ser. 5 no.9:169-174 '61. (MIRA 15:1)

(Sayan Mountains--Marsh tea) (Essences and essential oils)

KIR'YALOV, N.P.; NAUGOL'NAYA, T.N.

New triterpenic acid ("meristotropic") from Glycyrhiza triphylla Fisch. et Mey). Zhur.ob.khim. 33 no.2:694-697 F '63. (MIRA 16:2)

1. Botanicheskiy institut AN SSSR.
(Triterpenes) (Acids, Organic) (Licorice)

KIR'YALOV, N.P.; NAUGOL'NAYA, T.N.

New triterpenic acid ("macedonic") from Glycyrrhiza macedonica Boiss. et Orph. Zhur.ob.khim. 33 no.2:697-700 F '63. (MIRA 16:2)

1. Botanicheskiy institut AN SSSR.
(Triterpenes) (Acids, Organic) (Licorice)

KIR'YALOV, N.P.; NAUGOL'NAYA, T.N.

Triterpenic acid ("echinatic") from roots of Glycyrrhiza echinata L. Zhur.ob.khim. 33 no.2:700-703 F '63. (MIRA 16:2)

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KIR'YALOV, N.P.; MOVCHAN, S.D.

Reoselin, a new glycoside from rosin of the roots of Ferula pseudoreoselinum (RGL et Schmalh.) K. Pol. Dokl. AN SSSR 148 no.5:1081-1084 F '63. (MIRA 16:3)

1. Botanicheskiy institut im. V.L.Komarova AN SSSR. Predstavleno akademikom M.M.Shemyakinym.

(Glycosides) (Carrots)

KIR'YALOV, N.P.; SERKEROV, S.V.

New sesquiterpene lactone "badghysin" from the resin of Ferula oopoda Boiss. Zhur. ob. khim. 34 no.8:2813 Ag '64.

KIR'YALOV, N.P.; NAUGOL'NAYA, T.N.

New triterpene hydroxyketo acid, the uralenoic acid, from licorice (Glycyrrhiza uralensis Fisch.). Zhur. ob. khim. 34 no.8:2814 Ag '64. (MIRA 17:9)

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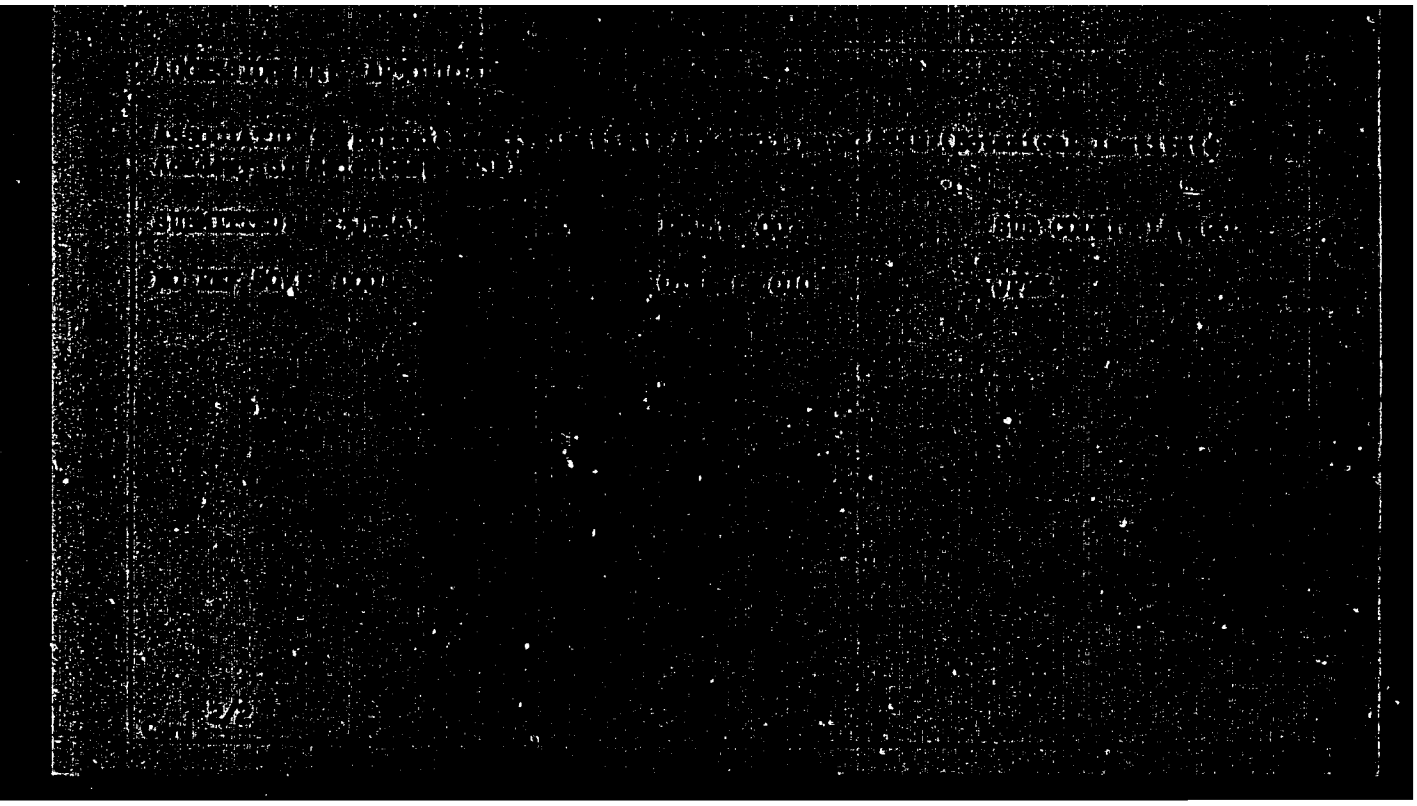


APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000722720015-5"

KIR'YALOV, N.P.; SERKEROV, S.V.

Scoparon in the root gum of Ferula oopoda Boiss. Zhur. prikl. khim. 38 no.1:225-226 Ja '65. (MIRA 18:3)

1. Botanicheskiy institut AN SSSR.

KIR'YALOV, N.P.

Second All-Union Interuniversity Coordinating Summary Conference on the Chemistry of Natural Compounds (Tashkent, November 30-December 3, 1964). Rast. res. 1 no.2:301-302 '65. (MIRA 18:11)

1. Botanicheskiy institut imeni Komarova AN SSSR, Leningrad.

KIR'YALOV, N.P.; AMIROVA, G.S.

Triterpene acids from the roots of Maristotropis triphylla Fisch. et Mey. Khim. prirod. soed. no.5:311-315 '65. (MIRA 18:12)

1. Botanicheskiy institut imeni V.L. Komarova AN SSSR. Submitted May 5, 1965.

PA40T47

KIR'YALOVA, YE. N.

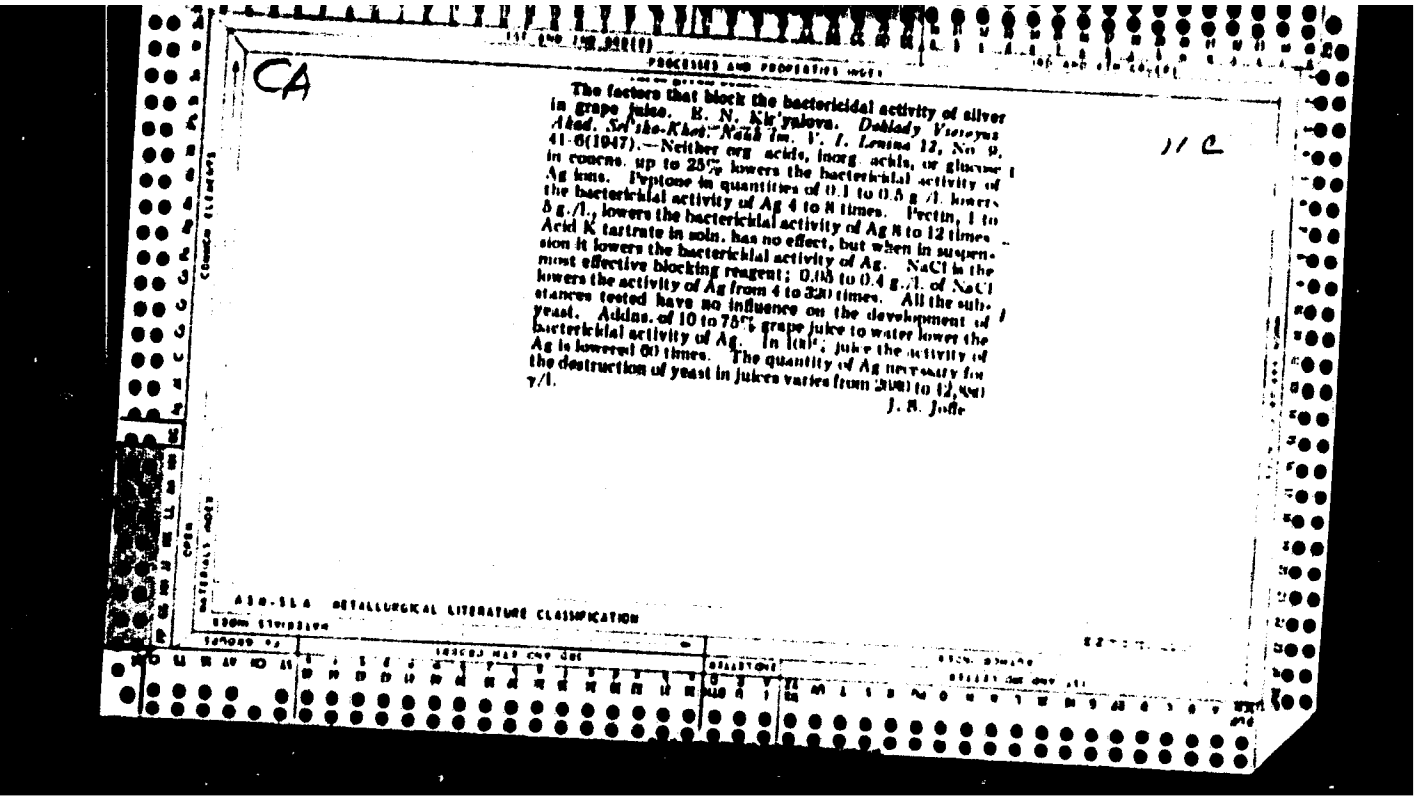
USSR/Medicine - Yeast - Properties Nov 1946
Medicine - Cider

"Selection and Study of Yeasts for Cider Production," Ye. N. Kir'yalova, All-Union Institute of Agricultural Microbiology, Leningrad, 5 pp

"Mikrobiologiya" Vol XV, No 5 - p. 385 - 9

Isolation, selection and study of the morphological and physiological properties of the yeasts Saccharomyces apiculatus and Torulopsis, characterized by the production of the fruit taste and aroma in apple juice fermented by them, are described. Results of laboratory and industrial tests show that by using selected pure cultures of yeasts, a cider possessing the characteristic fruit aroma and taste can be produced.

40T47



CA

The factors that block the bactericidal activity of silver in grape juice. E. N. Kir'yalova. *Doklady Vsesoyuz Akad. Sel'sko-Khoz. Nauk im. V. I. Lenina* 12, No. 9, 41-6(1947).—Neither org. acids, inorg. acids, or glucose in concns. up to 25% lowers the bactericidal activity of Ag ions. Peptone in quantities of 0.1 to 0.5 g./l. lowers the bactericidal activity of Ag 4 to 8 times. Pectin, 1 to 5 g./l., lowers the bactericidal activity of Ag 8 to 12 times. Acid K tartrate in soln. has no effect, but when in suspension it lowers the bactericidal activity of Ag. NaCl is the most effective blocking reagent; 0.05 to 0.4 g./l. of NaCl lowers the activity of Ag from 4 to 320 times. All the substances tested have no influence on the development of yeast. Addns. of 10 to 75% grape juice to water lower the bactericidal activity of Ag. In half juice the activity of Ag is lowered 60 times. The quantity of Ag necessary for the destruction of yeast in juices varies from 200 to 12,000 γ/l.

J. S. Joffe

A50-51A METALLURGICAL LITERATURE CLASSIFICATION

KIR'YALOVA, E. N.

PA 33/49T77

USSR/Medicine - Yeasts, in Wine Making
Medicine - Microbiology Oct 48

"Experimental Study of Yeast in Red Bilberry Juice," E. N. Kir'yalova, Cand Biol Sci, All-Union Inst of Agr Microbiol, 4 pp

"Dok v-s Ak Selkhoz Nauk" No 10

Pure yeast cultures obtained. Industrial use of these cultures produced excellent results. Morphological and physiological studies, and determination of cultural characteristics, permit classification of this yeast as Saccharomyces ellipsoideus. Several types of yeasts obtained

33/49T77

USSR/Medicine - Yeasts, in Wine Making (Contd) Oct 48

from the bilberry recommended for wide use in the wine industry. Submitted 12 Jul 48.

33/49T77

KIR'YALOVA, Ye. N.

Kir'yalova, Ye. N. "Problems in the microbiology of fruit and berry viniculture," Vinodeliye i vinogradarstvo SSSR, 1949, No. 2, p. 28-30

SO: U-3566, 15 March 53, (Letopis 'Zhurnal 'nykh' Statey, No. 14, 1949).

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2. USSR (600)

7. "The Yeast Microflora of Fruit and Berry Juices", Trudy Vsesoyuzn. Nauch.-Issled. In-ta S.-Kh. Mikrobiologii (Works of the All-Union Science-Research Institute of Agricultural Microbiology), Vol 11, No 2, 1951, pp 106-115

9. Mikrobiologiya, Vol XXI, Issue 1, Moscow, Jan-Feb 1952, pp 121-138. Unclassified.

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7. "Mixed Cultures of Yeasts in Fruit-Berry Viniculture", Trudy Vsesoyuzn. Nauch.-Issled. In-ta S.-Kh. Mikrobiologii (Works of the All-Union Science-Research Institute of Agricultural Microbiology), Vol 11, No 2, 1951, pp 116-124.

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1. KIR'YALOVA, YE. N. AND PUMPYANSKAYA, L. V.

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9. Mikrobiologiya, Vol XXI, Issue 1, Moscow, Jan-Feb 1952, pp 121-132. Unclassified.

1. KIR'YALOVA, YE. N.

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7. "Yeasts of the Northern Grape", Trudy Vsesoyuzn. Nauchno-Issl. In-ta S.-Kh. Mikrobiologii (Works of the All-Union Science-Research Institute of Agricultural Microbiology), Vol 11, No 2, 1951, pp 130-139.

9. Mikrobiologiya, Vol XXI, Issue 1, Moscow, Jan-Feb 1952, pp 121-132. Unclassified.

KIR'YALOVA, Ye. N.

Fruit Wines

Making wine from fruit and berries on collective farms. Sad i og., No. 7, 1952.

9. Monthly List of Russian Accessions, Library of Congress, _____1953. Unclassified.

KI:I'YALOVA, Ye. N.

Discussion on Kudriavtsev's article "Continuous selection of microorganisms from industry. Mikrobiologiia, Moskva 21 no.1:92-95 Jan-Feb 1952. (CIML 22:1)

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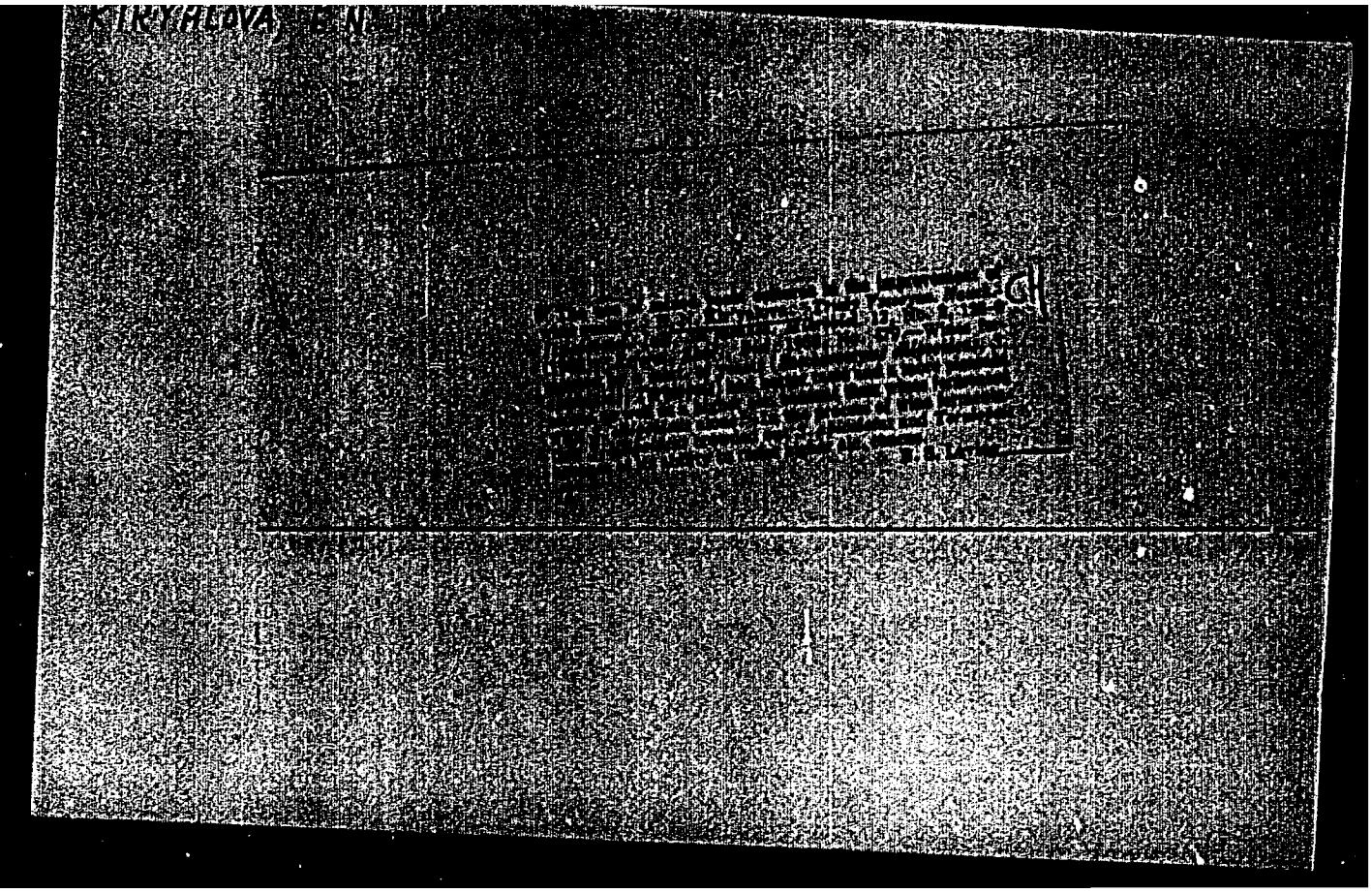

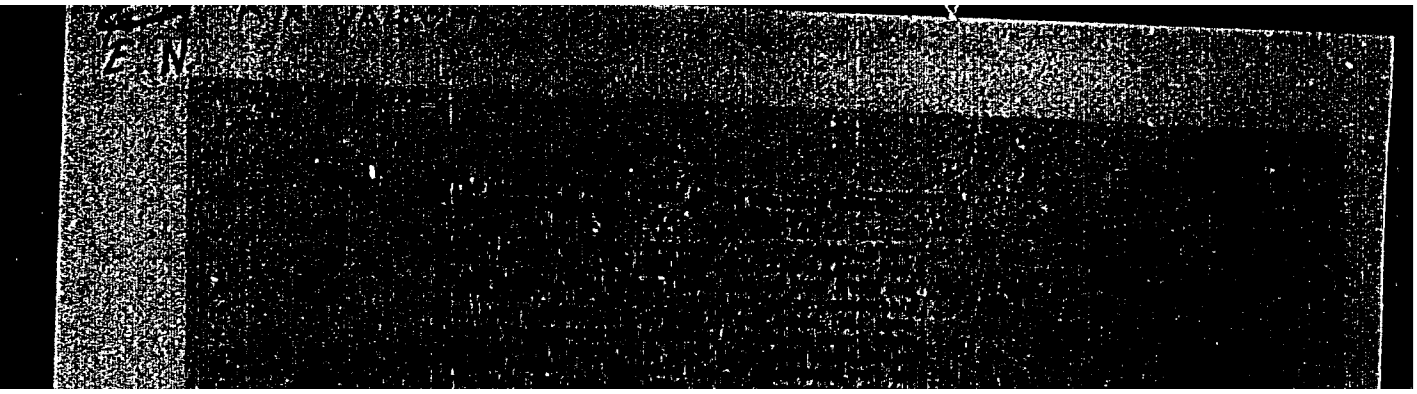

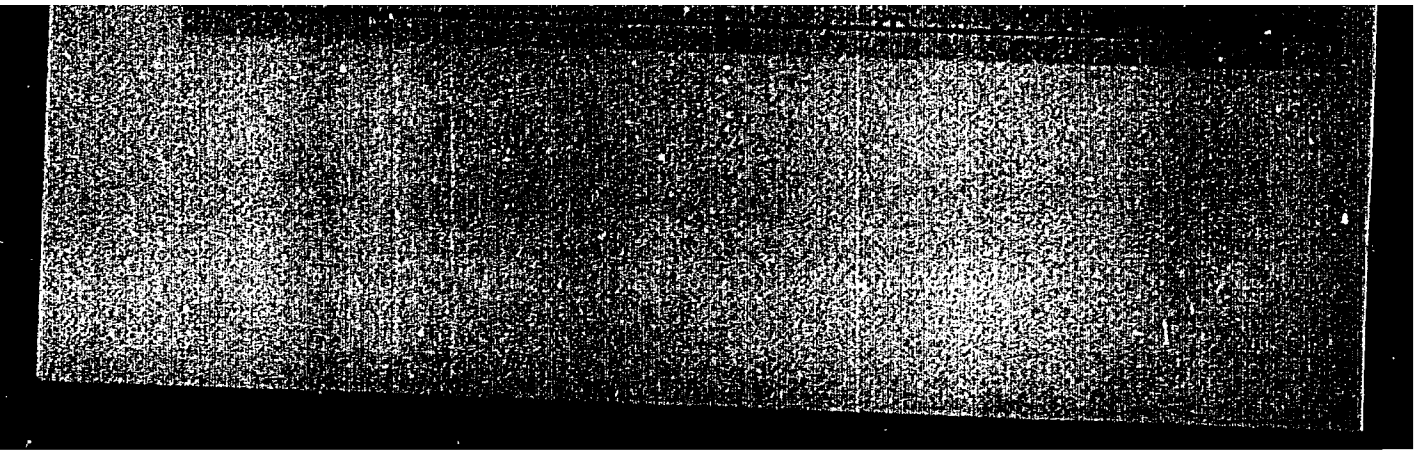

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000722720015-5"

KIR'YALOVA, Ye.N., kandidat biologicheskikh nauk.

Increasing the fermentation activity of dry yeast cultures.
Dokl.Akad.sel'khoz. 21 no.10:29-34 '56. (MLRA 9:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut sel'skokhozyaystvennoy mikrobiologii. Predstavleno akademikom I.I. Samoylovym.

(Yeast)

KIR'YALOVA, Yevdokiya Nikitichna; SHKLYAR, Mar'yasya Zalmanovna; VOROB'YEV, P.I., redaktor; FRIDMAN, Z.L., tekhnicheskiy redaktor

[Fruit and berry wines with pure yeast cultures] Plodovo-yagodnye vina na chistykh kul'turakh drozhzhei. Moskva, Gos. izd-vo sel'khoz. lit-ry, 1957. 36 p. (MLRA 10:3)
(Fruit wines)

USSR / Microbiology - Industrial Microbiology. F

Abs Jour: Ref Zhur-Biol., No 9, 1958, 38404.

Author : Kirvalova, E. N.
Inst : Not given
Title : Improvement in Productive Value of Yeast Dry Cultures.

Orig Pub: Byul. nauchno-tekhn. inform. po. s.-kh. mikrobiol., 1957, No 3, 35.

Abstract: No abstract.

Card 1/1

KIR'YALOVA, Ye.N.

Significance of environmental factors for controlled fermentation of dider. Trudy Vses. inst. sel'khoz. mikrobiol. 16:190-201 '60.
(MIRA 13:9)

(Cider) (Fermentation)

YAKUBOVICH, A.Ya.; GINSBURG, V.A.; MAKAROV, S.P.; SHFANSKIY, V.A.; PRIVEZENTSEVA, N.F.; MARTYNOVA, L.L.; KIR'YAN, B.V.; LEMKE, A.L.

Oxidation, reduction, and disproportionation of polyfluonitrosoalkanes. Dokl. AN SSSR 140 no.6:1352-1355 O '61. (MIRA 14:11)

1. Predstavleno akademikami I.L.Knunyantsem i M.I.Kabachnikom.
(Paraffins) (Nitroso compounds) (Oxidation-reduction reaction)

3(4)

AUTHOR: Kir'yan, D. F.

SOV/6-59-9-3/19

TITLE: Surveyors and Topographers of Yakutiya

PERIODICAL: Geodeziya i kartografiya, 1959, Nr 9, pp 19-23 (USSR)

ABSTRACT: The Aerogeodezicheskoye predpriyatiye (Aerogeodetic Service) which had to cartograph the Yakutskaya ASSR on a scale of 1 : 100,000 was organized in 1941. The great difficulties in carrying out this work are pointed out. The following aerial-camera operators distinguished themselves: V. P. Starostin, M. G. Tyurin, A. S. Yegorov, I. M. Nayflen, Ye. D. Kondakov. Also the pilots B. E. Ille, R. A. Pal'mbakh, K. I. Sidorov, and M. I. Nazarenko.- The survey of large-scale maps was started in 1953. Vasiliy Dmitriyevich Kapustin headed the Service from 1942 to 1954. Engineer Ya. P. Loparev has also been working since the establishment of the Service. The party leader D. M. Kudryavtsev has been working for 28 years in the system of the GUGK MVD USSR, including 12 years in Yakutiya. The engineers P. A. Ogorodnikov and S. M. Grebennikov have been working here since 1942. The former is chief engineer of the expedition, the latter is chief of the department of technical control. Engineer M. K. Rossinskiy has been working since

Card 1/3

the establishment of the Service, and is at present chief of the planning- and design office. Engineer M. G. Andreyev has been working as a prospector for 25 years. The topographer A. L. Belyayev has been working since 1942, Engineer A. A. Ivanov since 1944. The latter is at present chief-engineer inspector in the technical control. P. A. Toropchinov has been working in the GUGK-system for 22 years, including 12 in Yakutiya, and is at present chief of the geodetical party. The natives A. N. Yefremov and M. I. Chernogradskiy turned from simple workers to topographers. In winter, they crossed in 30 days the Verkhoyanskiy Range from Verkhoyansk to Yakutsk. N. I. Gavril'yev, a native of Yakutiya, has been working since 1942 when he had finished his studies at the agricultural institute, and is at present chief topographer. I. S. Ushakov leads a team. The prospector G. U. Glukhov has been working for 20 years, the building technician F. G. Cherdantsev since 1932. Further meritorious collaborators are listed: Chief Building Technician A. S. Mikhaylov, Chief Building Technician I. F. Nazarov, Chief Building Technician N. M. Porokhnya, Engineer N. T. Kulikov, Party Leader N. A. Medvedev, Technician A. M. Volkov, Chief Topographer P. V. Dorogin, Topographer V. D. Vlasov,

Surveyors and Topographers of Yakutiya SOV/6-59-9-3/19

Topographer A. M. Kazakov, Photolaboratory Worker L. P. Malenkov, Workshop Leader N. S. Semenkov, Topographer V. A. Konopleva, Chief Technician T. P. Kondrat'yeva (mother of 5 children) V. I. Ryabtseva in the indoor service, the photogrammetrists V. Ye. Koreysha, V. K. Nechayeva, L. A. Krivtsova, R. P. Krasnova; in the indoor service - K. A. Dubrovskaya, V. M. Khloplkova, the tracer R. P. Gileva; in the field brigades: K. I. Putailova; Brigadier Ye. Ye. Guzhayeva; M. I. Rezinkina, deputy chief of the indoor-service workshops; Chief Editor P. V. Skuryagina, Brigadier V. I. Romanova, I. I. Zamashchikov, S. S. Perfil'yev, Engineer Prospector Yu. G. Senatorov, Topographer K. A. Barovik, Engineer Ye. A. Samokhodkina, Topographer V. G. Glushkov, Indoor-service Topographer A. A. Tarasov.

Card 3/3

KIR'YAN, G.V.; GREBENYUK, I.F.

Introducing automatic control of low and medium capacity mine pumps. Sbor.nauch.rab.stud. LGI no.2:135-141 '57. (MIRA 13:4)

1. Leningradskiy ordenov Lenina i Trudovogo Krasnogo Znameni gornyy institut im. G.V.Plekhanova. Predstavlenc prof. S.A. Alatartsevym.
(Mine pumps) (Automatic control)

KIR'YAN, V.M.

Biochemical changes in the organisms during fatigue. Influence of muscular work on maintaining amino nitrogen and residual nitrogen in the blood. Yu. M. GEFTER and V.M. KIR'YAN (BIOCHEM. DEPT. OF LENINGRAD, VIEM-BRANCH) vol.2, no.2, p. 499, 1937.

KIR'YANENKO, Sergey Grigor'yevich; TSARENKO, A.P., inzh.red.; BOBROVA, Ye.N., tekhn.red.

[Organization of work on narrow-gauge railroads] Organizatsiia raboty zheleznykh dorog uzkoi kolei. Gos. transp.zhel-dor. izd-vo, 1958, 159 p. (MIRA 11:5)
(Railroads, Narrow-gauge)

KIR'YANOV, A. K.

KIR'YANOV, A. K. - "Investigation of the Transfer Number of Simple Fused Slag Using the Method of Radioactive Indicators." Min Higher Education USSR. Ural Polytechnic Inst imeni S. M. Kirov, Sverdlovsk, 1955. (Dissertation for the Degree of Candidate in Technical Sciences.)

So; Knizhnaya Letopis' No 3, 1956

KIR'YANOV, A. K.

USSR/Physical Chemistry. Electrochemistry. B-12

Abs Jour : Ref Zhur - Khimiya, No 7, 1957, 22487.

Author : O. A. Esin, Kir'yanov A. K.
Inst : Not given
Title : Transference Numbers of Ions of Iron in its Molten Silicates.

Orig Pub : Izv. AN USSR, Otd. tekhn. n., 1956, No 8, 20-27.

Abstract : Transference numbers (TN) of ions of iron in fusions of FeO-SiO_2 system were measured with the aid of a radioactive isotope Fe^{59}. Common slag was melted in a Fe crucible at 1300-1400°, and the marked slag - in a quartz test tube or in an alundum crucible, inserted in a Fe- crucible. A current of 2-4 a was passed during 7-10 minutes. Diffusion speed was determined by control experiments. TN of Fe ions falls from 0.9 to 0.2 with the increase of FeO concentration from 62 to 84%. This is explained by an increased participation of oxygen anions in electricity transfer, and to the increased part of the electronic conductivity. It is shown in an addition to the preceding work (RZhKhim.,1956,54046) that TN of Ca is near to I for slag containing 38% CaO, 42% SiO_2 and 20% Al_2O_3. This serves as an experimental confirmation of a cationic nature of

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SOV/137-58-7-14239

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 7, p 40 (USSR)

AUTHOR: Kir'yanov, A.K.

TITLE: On the Selection of Methods for the Investigation of the Character of Conductivity of Molten Slags (O vybore metodiki issledovaniya kharaktera provodimosti rasplavlennykh shlakov)

PERIODICAL: Tr. i materialy. Ural'skiy n.-i. i proyektn. in-t medn. prom-sti, 1957, Nr 2, pp 329-335

ABSTRACT: A review of methods for measuring the physico-chemical properties of molten slags. The following methods are mentioned: Measurement of electrical conductivity for the purpose of determining the type of conductivity, measurement of the jump in conductivity during melting, measurements of anode and cathode current efficiencies during electrolysis, and also of transference numbers. An analysis of the methods employed in the measurement of the transference numbers was conducted. Original methods and a design for the construction of an iron-alundum electrolyzer, consisting of an iron crucible with two eccentrically bored hollows were proposed. The electrolyzer can be used for the investigation of ferrous slags at

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On the Selection of Methods for the Investigation (cont.)

temperatures up to 1400°C. The participation of the anions in the transference of electricity has been established in particular of anions of oxygen and complex silico-alumo-oxygen anions.

A.B.

1. Slags--Electrical properties 2. Slags--Phase studies 3. Slags--Electrolysis
4. Electrical conductance--Measurement

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137-58-6-11951

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 6, p 109 (USSR)

AUTHOR: Kir'yanov, A.K.

TITLE: Prospects of Employment of Radioactive Isotopes in the Copper Industry (Perspektivy primeneniya radioaktivnykh izotopov v mednoy promyshlennosti)

PERIODICAL: Tr. i materialy. Ural'skiy n.-i. i proyektn. in-t medn. prom-sti, 1957, Nr 2, pp 336-342

ABSTRACT: A list of the branches of production in the copper industry is provided, and certain specific means of employing isotopes therein for process control and investigation are noted.

G.S.

1. Copper--Processing 2. Radiosotopes--Effectiveness

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AUTHOR: Kir'yanov, A.K. 32-3-40/52

TITLE: A Container for the Simultaneous Storage of Several Gamma-Radioactive Substances (Konteyner dlya odnovremennogo khraneniya neskol'kikh gamma-radioaktivnykh veshchestv)

PERIODICAL: Zavodskaya Laboratoriya, 1958, Vol. 24, Nr 3, pp. 360-361 (USSR)

ABSTRACT: In the Institute mentioned below a storage container was constructed, which, in principle, consists of an iron cylinder with a diameter of about 270 mm. The bottom part of the cylinder is lined with a mixture consisting of 85% fire clay and 15% refractory clay. In the center of the container there are several metal tubes into which the samples, which are in small china tubes, are introduced. The space around the metal tubes is filled up with lead, and, besides, a handle (holding rod) is provided. A metal hood lined with lead serves as a lid. The container, the dimensions of which are given in connection with a drawing, has a weight of about 100 kg. If substances of higher activity are to be stored, the container may be fitted with a thicker lining and, besides, it can be placed into a concrete shaft closed by a lid. The little

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A Container for the Simultaneous Storage of Several Gamma-Radioactive Substances 32-3-40/52

china tubes containing the samples rest upon rubber stoppers and are held in their place from above by small wire springs. There is 1 figure.

ASSOCIATION: Ural Scientific Research and Planning Institute of the Copper Industry (Ural'skiy nauchno-issledovatel'skiy i proyektnyy institut mednoy promyshlennosti)

AVAILABLE: Library of Congress

1. Gamma radioactive materials-Storage

Card 2/2

8(1), 18(7) SOV/32-25-4-49/71

AUTHOR: Kir'yanov, A. K.

TITLE: Multipoint Electrolyzer for Polishing Metals (Mnogotochechnyy elektrolizer dlya polirovki metallov)

PERIODICAL: Zavodskaya Laboratoriya, 1959, Vol 25, Nr 4, pp 487-488 (USSR)

ABSTRACT: By means of an electrolyzer (Ref 1), high-quality metal surfaces can be attained though they are not very large. To judge the structure of a larger metal surface, polishing in several places has to be carried out. In the present case, a device is described which permits several samples to be polished at the same time (Figure). Three samples with surfaces up to 2-3 cm^2 can be polished in 5 places each, but the surfaces polished can also be enlarged. In principle, the electrolyzer represents a closed plastic vessel which is divided by a partition wall into a left and a right half. This partition wall has three borings in which rubber stoppers are placed. The latter have 5 symmetrically arranged borings which are reinforced by small glass tubes. The left vessel half is divided into three segments so that each boring opens out into one of the segments. In these segments the cathodes in form of metal strips are accommodated,

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Multipoint Electrolyzer for Polishing Metals

and the electrolyte is also filled in the segments. The metal samples to be polished in the right vessel half are pressed onto the rubber stoppers by screws; they are in contact with the electrolyte by the 5 borings mentioned above, and are polished in these places. There are 1 figure and 1 Soviet reference.

ASSOCIATION: Ural'skiy nauchno-issledovatel'skiy i proyektnyy institut mednoy promyshlennosti (Ural Scientific Research and Design Institute of the Copper Industry)

5(2)

AUTHORS: Okunev, A. I., Kir'yanov, A. K., Sergin, B. I.

SOV/20-124-6-28/55

TITLE: Equilibrium Conditions in the Reduction of Zinc Oxide With Metallic Iron (Ravnovesnyye usloviya vosstanovleniya okisi tsinka metallicheskim zhelezom)

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 124, Nr 6, pp 1282-1284 (USSR)

ABSTRACT: The distillation of zinc in fuming of the zinc containing slags is also determined by the reaction mentioned in the title. The equilibrium conditions of this reaction are, however, experimentally not investigated (Refs 1,2). The present paper gives a short survey of the results of such an investigation of the reaction $Fe_{(solid)} + ZnO_{(solid)} = FeO_{(solid)} + Zn_{(gaseous)}$ (a). Table 2 shows the results of the thermodynamic analysis of the reaction (a) and the by-processes (according to reference 3). The equilibrium conditions of the reaction (a) were investigated according to the previously employed method (Ref 4). Table 3 and figure 1 give the results. In this connection the

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by-reactions (b) and (v) have to be considered. Table 1 shows their thermodynamic analysis, from where it was to be seen that the pressure of zinc, developed as a result of this reaction is much weaker than the vapor tension of the main process. It was therefore possible to neglect the action of reactions (b) and (v) upon reaction (a). It is, however, true that the equilibrium tension in reactions (b) and (v) surpasses the zinc-vapor tension in connection with fuming of the slag by its manifold. Under certain conditions the interactions can be used for practical purposes. As it can be seen from figure 1 and the comparison of the data of tables 2 and 3 the experimentally found values of the equilibrium constants of the reaction (a) agree satisfactorily with the values computed. The same holds for ΔH_0 which was calculated by the method of the δ-function. This may serve as an indirect proof for the lacking influence of the by-processes. Finally, equations are given for the temperature dependence of the variation of the isobaric potential. There are 1 figure, 4 tables, and 6 Soviet references.

Equilibrium Conditions in the Reduction of Zinc Oxide With Metallic Iron SOV/20-124-6-28/55

ASSOCIATION: Ural'skiy nauchno-issledovatel'skiy i proyektnyy institut mednoy promyshlennosti (Ural Scientific Research and Planning Institute of Copper Industry)

PRESENTED: October 6, 1958, by S. I. Vol'fkovich, Academician

SUBMITTED: October 4, 1958

Card 3/3

5(1, 2)

AUTHORS: Okunev, A. I., Kir'yanov, A. K., Sergin, B. I.

SOV/20-125-1-39/67

TITLE: Equilibrium Conditions in the Interaction Between Cadmium Oxide and Cadmium Sulphide (Usloviya ravnovesiya pri vzaimodeystvii okisi kadmiya s sul'fidom kadmiya)

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 125, Nr 1, pp 147-148 (USSR)

ABSTRACT: The conditions mentioned in the title are not yet experimentally investigated. The interaction mentioned is, however, of great practical importance to the analysis of the behavior of cadmium in pyrometallurgical processes. Up to now computed data were used for these purposes. In this paper the results of an experimental investigation of the mentioned conditions of the reaction: $2\,CdO_{(solid)} + CdS_{(solid)} = 3Cd_{(gas)} + SO_{2\,(gas)}$ (a) are described and compared to the results of the computation. The thermodynamic analysis of reaction (a) was carried out according to the method of reference 1 by using the thermodynamical data (Refs 2, 3, Table 1). The results are summarized on table 2.

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The experimental investigation was carried out according to the earlier method (Ref 5). Table 3 gives the experimental results and the equilibrium constants computed herefrom as well as the variation of the isobaric potential and of the cadmium vapor pressure at the experimental temperatures. The sublimation and dissociation pressure of cadmium oxide is lower by many times than that of cadmium sulphide. Therefore the action of further processes ($CdO_{(solid)} = CdO_{(gas)}$ (b): $CdO_{(solid)} = Cd_{(gas)} + 1/2\ O_{2(gas)}$ (v): $CdS_{(solid)} = CdS_{(gas)}$ (g) and $CdS_{(solid)} = Cd_{(gas)} + 1/2S_{2(gas)}$ (d)) could be taken into account on the basis of experimental data on the sublimation and dissociation of cadmium sulphide (Ref 5). In this connection it was found that the yield of products is within the range of errors due to by-processes and can be neglected. The variation of the enthalpy of the system at 298° K (ΔH_{298°) computed from the experimental results was 162400 cal/mol,

as compared to 168200 cal/mol according to the calorimetric measurements. The experimental data can be satisfactorily expressed by 2 equations. Figure 1 shows a comparison of the computed and experimental values of the equilibrium constants of the reaction (a). There are 1 figure, 3 tables, and 5 Soviet references.

ASSOCIATION: Ural'skiy nauchno-issledovatel'skiy i proyektnyy institut mednov promyshlennosti (Ural Scientific Research and Design Institute of the Copper Industry)

PRESENTED: October 6, 1958, by S. I. Vol'fkovich, Academician

SUBMITTED: October 4, 1958

KIR'YANOV, A.K.; YESIN, O.A.

Current efficiency in the electrolysis of molten iron silicate.
Trudy Inst.met.UFAN SSSR no.5:87-92 '60. (MIRA 13:8)
(Iron--Electrometallurgy)

KIR'YANOV, A.K.; PAZDNIKOV, P.A.; BABACHANOV, I.F.; DUDIN, R.N.;
Prinimali uchastiye: BOGOMOLOV, I.Ye.; ROMANOV, G.K.;
SUKHORUKOV, Yu.P.; SAVINTSEV, P.R.

Slag depletion in tubular rotary furnaces. TSvet. met. 36 no.9:
29-32 S '63. (MIRA 16:10)

KIR'YANOV, A.P. [deceased]

Studying cultivation for ginseng in the Moscow area. Mat. k izuch. zhen'shenia i lim. no.4:231-235 '60. (MIRA 13:9)

1. Vsesoyuznyy institut lekarstvennykh i aromaticheskikh rasteniy.
(MOSCOW PROVINCE—GINSENG)

KIR'YANOV, A.P., inzhener.

Mechanizing the construction of underground structures. Mekh. stroi. 13 no.6: 10-14 Je '56. (Underground construction) (MIRA 9:9)

KIR'YANOV, A., inzh.

Laying pipelines by the method of pushing without using pipe jackets. Na stroi. Mosk. 1 no.2:17-18 F '58. (MIRA 11:9)
(Pipelines)

KIR'YANOV, A.P., inzh.

Mechanizing the loading and unloading of cement in the Moscow Trust of Underground Construction. Mekh.stroi. 15 no.12:23-24 D '58. (MIRA 11:12)

(Loading and unloading) (Concrete--Transportation)

SKRAMTAYEVA, G.I.; KIR'YANOV, A.P., glavnyy mekhanik

Laying insulated pipelines by the method of pushing. Gor.khoz.Mosk. 32 no.12:36-38 D '58. (MIRA 11:12)

1. Akademiya kommunal'nogo khozyaystva imeni K.D. Pamfilova (for Skramtayeva). 2. Upravleniye "Mospodzemstroy" (for Kir'yanov).
(Pipelines)

SKRAMTAYEVA, G.A., insh., ispolnyayushchiy obyazannosti starshego nauchnogo sotrudnika. Prinimali uchastiye: KIR'YANOV, A.P.; FINKEL'SHTEYN, Ya.B.; NOSOV, F.P.. STRIZHEVSKIY, V.I., kand.tekhn.nauk, nauchnyy red.; CHABROV, I.M., red.

[Method for applying cement coatings in insulating steel pipes to be used in trenchless and jacketless pipelaying; scientific report] Tekhnologiia naneseniia tsementnoi izoliatsii na stal'nye truby dlia bestranshseinoi besfutliarnoi prokladki truboprovodov; nauchnoe soobshchenie. Moskva, Otdel nauchno-tekhn.informatsii Akad.kommun. khoz., 1959. 18 p. (MIRA 13:6)

1. Glavnyy mekhanik Upravleniya po stroitel'stvu podzemnykh sooruzheniy Glavmosstroya (for Kir'yanov). 2. Nachal'nik Proizvodstvenno-tekhnicheskogo otdela (for Finkel'shteyn). 3. Glavnyy inzhener trubozagotovitel'nogo zavoda tresta "Mospodzemstroyanab" (for Nosov).
(Protective coatings) (Pipelines)